SONY

4-227-889-**12**(1)

Mini Hi-Fi Component System

Operating Instructions

MHC-ZX30AV

©2000 Sony Corporation

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

NOTICE FOR THE CUSTOMERS IN CANADA

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ENERGY STAR® is a U.S. registered mark.
As ENERGY STAR® Partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

This stereo system is equipped with the Dolby B-type noise reduction system*.

* Manufactured under license from Dolby Laboratories Licensing Corporation.
DOLBY and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

АЯ46

Table of Contents

Getting Started

Step 1: Hooking up the system 4
Step 2: Setting up your speakers 7
Step 3: Setting the time 9
Step 4: Presetting radio stations 10
Saving the power in standby mode* 12

Basic Operations

Playing a CD 13
Recording a CD 15
Listening to the radio 16
Recording from the radio 18
Playing a tape 19
Recording from a tape 22

The CD Player

Using the CD display 23
Playing the CD tracks repeatedly 24
Playing the CD tracks in random order ... 25
Programming the CD tracks 26

The Tape Deck

Recording on a tape manually 28
Recording a CD by specifying track order 29

DJ Effects

Looping part of a CD 32
Flashing part of a CD 33

Sound Adjustment

Adjusting the sound 33
Selecting the preset audio effect file 34
Changing the spectrum analyzer display 36
Selecting surround effects 37
Enjoying Dolby Pro Logic Surround sound 38
Controlling the graphic equalizer 39
Creating a personal audio effect file 40

Other Features

Using the Radio Data System (RDS)** .. 41
Falling asleep to music 43
Waking up to music 44
Timer-recording radio programs 46

Optional components

Connecting audio components 48
Connecting a VCR 50
Connecting a DVD player 50
Connecting external antennas 51

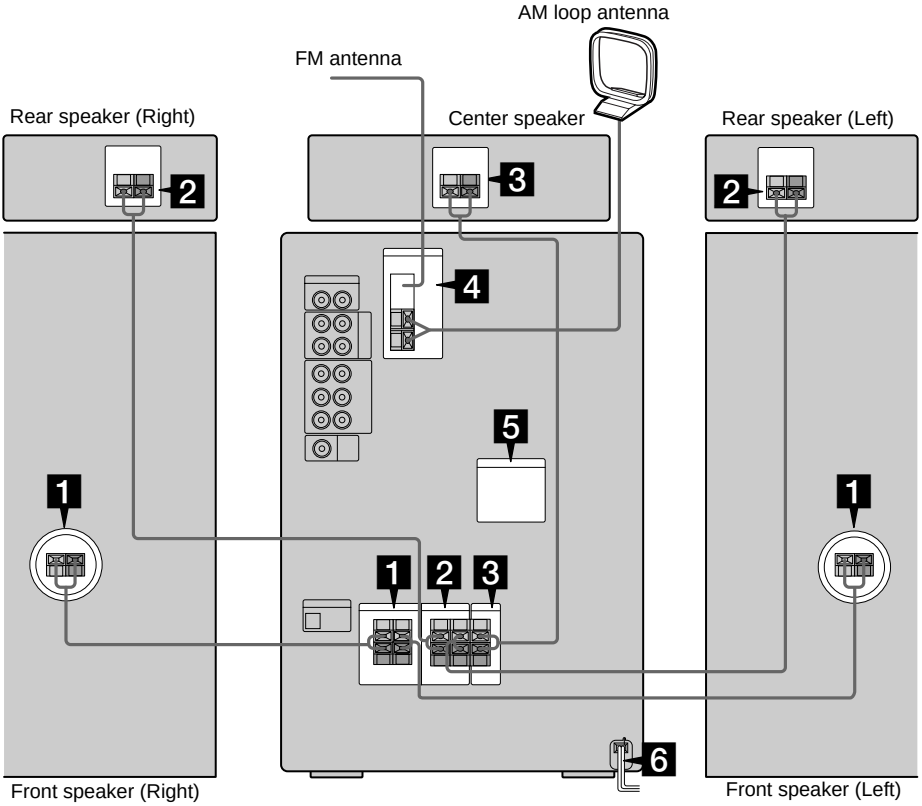
Additional Information

Precautions 53
Troubleshooting 54
Specifications 57
Parts Identification for the remote 60
Index 61
Items in “Sound Mode” and “Set Up Mode” ..... Back cover

* Canadian and European models only
** European model only

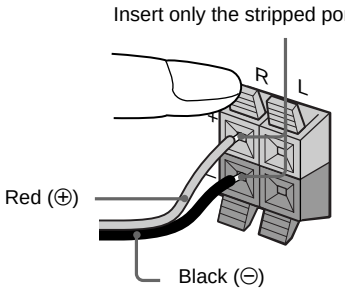
Step 1: Hooking up the system

Follow steps 1 through 6 of the following procedure to hook up your system using the supplied cords and accessories.



1 Connect the front speakers.

Connect the speaker cords of the front speakers to the FRONT SPEAKER jacks as below.

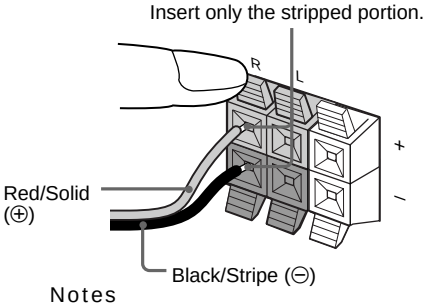


Notes

- Keep the speaker cords away from the antennas to prevent noise.
- The type of speakers supplied vary according to the model you purchased (see "Specifications" on page 57).

2 Connect the rear speakers.

Connect the speaker cords of the rear speakers to the REAR SPEAKER jacks.

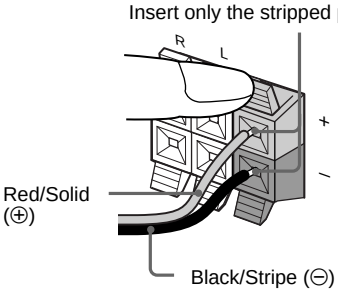


Notes

- Keep the speaker cords away from the antennas to prevent noise.
- Do not place the rear speakers on top of a TV. This may cause color distortion in the TV screen.

3 Connect the center speaker.

Connect the speaker cords of the center speaker to the CENTER SPEAKER jacks.



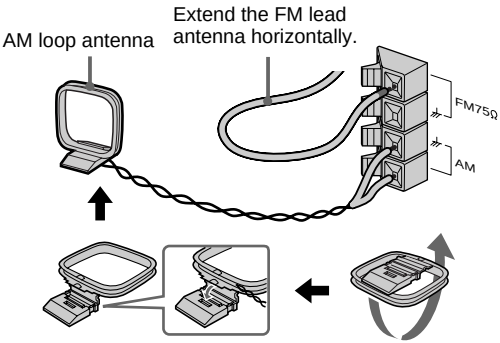
Note

Keep the speaker cords away from the antennas to prevent noise.

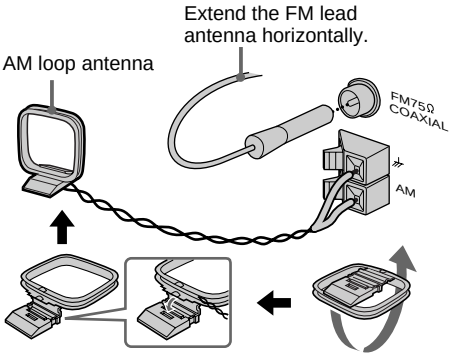
4 Connect the FM/AM antennas.

Set up the AM loop antenna, then connect it.

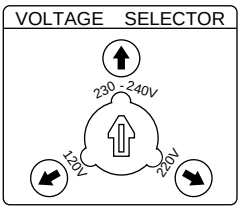
Jack type Ⓐ



Jack type Ⓑ



5 For models with a voltage selector, set VOLTAGE SELECTOR to the position of your local power line voltage.



continued

Step 1: Hooking up the system (continued)

6 Connect the power cord to a wall outlet.

If the supplied adapter on the plug does not fit your wall outlet, detach it from the plug (only for models equipped with an adapter).

To connect optional components

See page 48.

To deactivate/activate the demonstration

When you set the time (“Step 3: Setting the time” on page 9), the demonstration is deactivated.

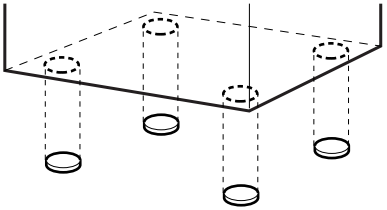
To activate/deactivate the demonstration again, press DISPLAY repeatedly while the system is off.

Tip

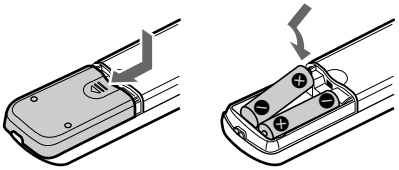
You can reinforce the bass sound by connecting an optional super woofer to the super woofer connector.

To attach the front speaker pads

Attach the supplied front speaker pads to the bottom of the speakers to stabilize the speakers and prevent them from slipping.



Inserting two size AA (R6) batteries into the remote



Tip

With normal use, the batteries should last for about six months. When the remote no longer operates the system, replace both batteries with new ones.

Note

If you do not use the remote for a long period of time, remove the batteries to avoid possible damage from battery leakage.

When carrying this system

Do the following to protect the CD mechanism. Make sure that all discs are removed from the unit.

1 Press FUNCTION repeatedly until “CD” appears in the display.
2 Hold down V-GROOVE and press I/⏻ so that “LOCK” appears in the display.

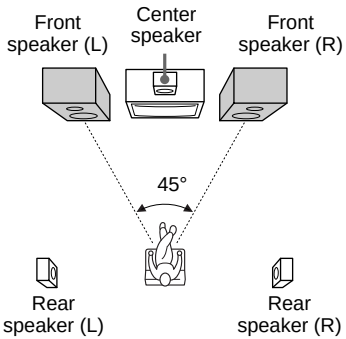
Step 2: Setting up your speakers

Connecting the supplied rear and center speakers enables you to fully enjoy Dolby Pro Logic Surround sound. Dolby Pro Logic Surround is a decoding system standardized in TV programs and movies. Dolby Pro Logic Surround improves the sound image by using four separate channels. These channels manipulate the sound to be heard and enhance the action of the TV screen.

Positioning the speakers

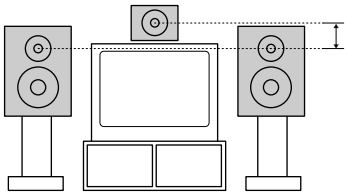
Before you connect the speakers, determine the best location for them.

1 Place the front speakers at an angle of 45 degrees from your listening position.

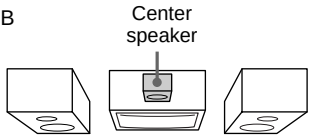


2 Place the center speaker at about the same height as the front speakers (A). Align the center speaker with the front speakers or place it slightly behind the front speakers (B).

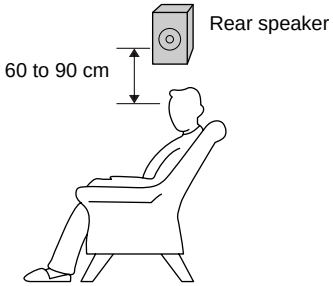
A



B



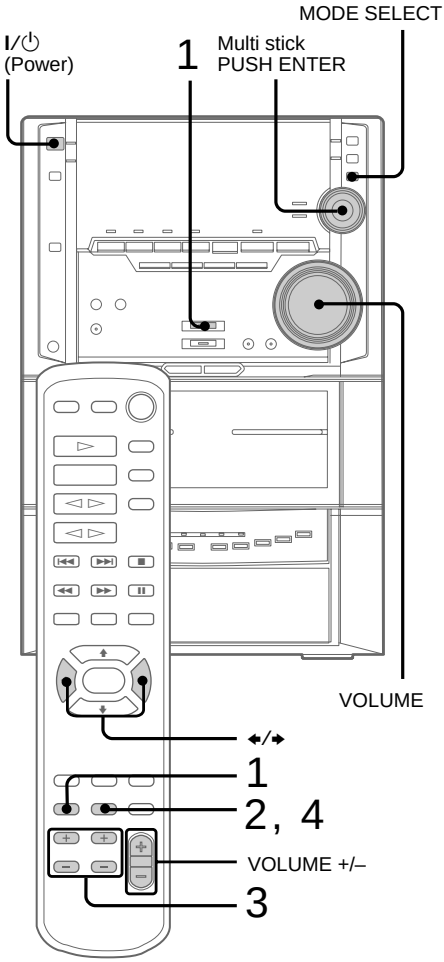
3 Place the rear speakers facing each other at about 60 to 90 cm above your listening position.



continued

Adjusting the speaker volume

To enjoy Dolby Pro Logic Surround sound, turn on the Dolby Pro Logic mode, then adjust the volume of each speaker using the test tone provided by the system.



1 Press PRO LOGIC (or PRO LOGIC ON/OFF on the remote).

"PRO LOGIC ON" appears.

2 Press T.TONE ON/OFF on the remote.

Each speaker will emit a test tone in the following order. Adjust the volume of the test tone.

→ LEFT → CENTER → RIGHT →
← REAR L ← REAR R ←

3 From your listening position, press CENTER LEVEL (+/–) and REAR LEVEL (+/–) on the remote to adjust the volume.

For the rear level, the rear right speaker will emit sound.

The volume levels from each speaker must become the same.

4 Press T.TONE ON/OFF when you are done adjusting.

The test tone turns off.

Tip

If you turn VOLUME (or press VOLUME +/– on the remote) all the speaker volumes change.

Note

The test tone feature works only for Dolby Pro Logic Surround sound.

To adjust the speaker balance

You can adjust the balance of the front speakers and the rear speakers.

1. In step 2 above, select RIGHT, LEFT or CENTER to adjust the front balance, and select REAR R or REAR L to adjust the rear balance.
2. Press ← or → on the remote (or move the multi stick on the unit toward ◀ or ▶) and adjust the balance.

Tip

You can adjust the speaker balance using the "Sound Mode" menu.

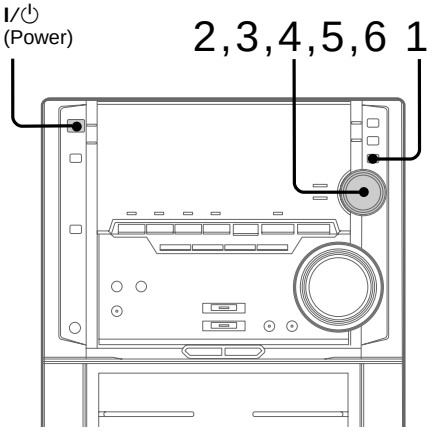
1. Press MODE SELECT repeatedly to select "Sound Mode", then press PUSH ENTER.
2. Move the multi stick toward ◀ or ▶ repeatedly to select "Front Balance" or "Rear Balance", then press PUSH ENTER.
3. Move the multi stick toward ◀ or ▶ repeatedly to adjust the balance, then press PUSH ENTER.

Step 3: Setting the time

You must set the time before using the timer functions.

The clock is on a 24-hour system for the European model, and on a 12-hour system for other models.

For illustration purposes, the 24-hour system model is used.



1 Press MODE SELECT when the system is turned off.

"Clock Set ?" appears.
When the system is in the Power Saving Mode, "Clock Set ?" will not appear. Either set Power Saving Mode off, or follow the steps on the following page ("To change the time") after turning the power on.

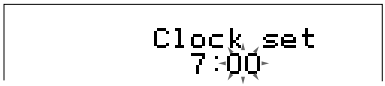
2 Press PUSH ENTER.

The hour indication flashes.

3 Move the multi stick toward ▲ or ▼ repeatedly to set the hour.

4 Move the multi stick toward ▶.

The minute indication flashes.



5 Move the multi stick toward ▲ or ▼ repeatedly to set the minute.

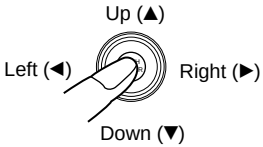
6 Press PUSH ENTER.

To cancel the menu operation

Press MODE SELECT.

Tips

- Refer to the illustration to use the multi stick. Place your finger on the center of the multi stick and move in the direction you want (up/down or left/right shown ▲/▼ or ◀/▶ in this manual).



- If you've made a mistake, start over from step 1.

continued

Step 3: Setting the time (continued)

To change the time

The previous explanation shows you how to set the time while the power is off. To change the time while the power is on, do the following:

1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

2 Move the multi stick toward ◀ or ▶ repeatedly to select “Timer Set Up ?”, then press PUSH ENTER.

3 Move the multi stick toward ◀ or ▶ repeatedly to select “Clock Set ?”, then press PUSH ENTER.

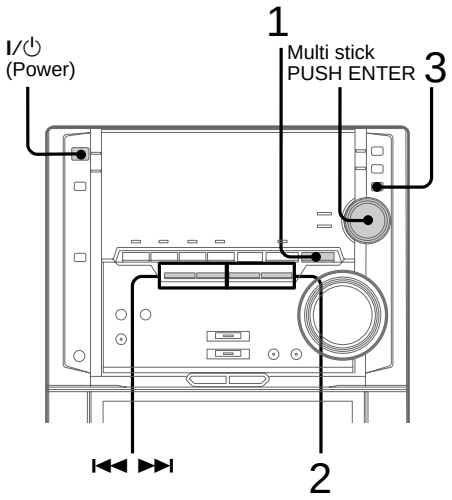
4 Perform steps 3 through 6 on page 9.

Note

The clock settings are canceled when you disconnect the power cord or if a power failure occurs.

Step 4: Presetting radio stations

You can preset a total of 30 stations (20 for FM and 10 for AM).



1 Press TUNER/BAND repeatedly to select FM or AM.

2 Press and hold ◀◀ or ▶▶ until the frequency indication starts to change, then release.

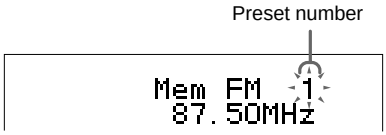
Scanning stops automatically when a station is tuned in. “TUNED” and “STEREO” (for a stereo program) appear.

3 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

4 Move the multi stick toward ◀ or ▶ repeatedly to select “TUNER Set Up ?”, then press PUSH ENTER.

5 Move the multi stick toward ◀ or ▶ repeatedly to select “TUNER Memory ?”, then press PUSH ENTER.

A preset number and the frequency appear in the display. The stations are stored from preset number 1 automatically.



6 Press PUSH ENTER.

7 Repeat steps 2 through 6 to store other stations.

To cancel the menu operation

Press MODE SELECT.

To tune in a station with a weak signal

Press ◀◀ or ▶▶ repeatedly in step 2 to tune in the station manually.

To set another station to an existing preset number

Start over from step 1. After step 5, press ⏮ or ⏭ to select the preset number where you want to store the other station, then press PUSH ENTER.

You can preset a station in the selected preset number.

To erase a preset station

1 Press TUNER/BAND to select FM or AM.
2 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
3 Move the multi stick toward ◀ or ▶ repeatedly to select “TUNER Set Up ?”, then press PUSH ENTER.
4 Move the multi stick toward ◀ or ▶ repeatedly to select “TUNER Erase ?”, then press PUSH ENTER.
5 Move the multi stick toward ◀ or ▶ repeatedly to select the preset number you want to erase, then press PUSH ENTER.

Select “TUNER Ers FM ALL” (or “TUNER Ers AM ALL”) when you want to erase all the preset stations.

When you erase a preset number, the preset number decreases by one and all preset numbers following the erased one are renumbered.

Tip

The preset stations are retained for half a day even if you unplug the power cord or a power failure occurs.

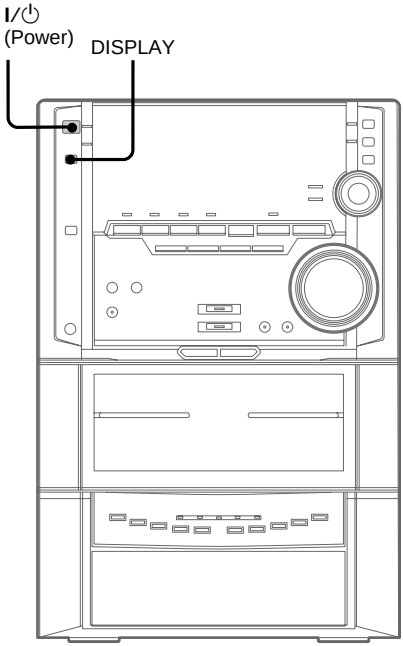
To change the AM tuning interval (Except for the European and Middle Eastern models)

The AM tuning interval is factory-preset to 9 kHz (10 kHz in some areas). To switch the AM tuning interval, tune in any AM station first, then turn off the power. While holding down MODE SELECT, turn the power back on. When you switch the interval, AM preset stations are erased. To switch back to the original interval, repeat the same procedure.

Saving the power in standby mode

(Canadian and European models only)

You can lower the power consumption to a minimum (Power Saving Mode) and save energy in the standby mode.



➡ Press DISPLAY repeatedly when the power is off.

Each time you press the button, the display changes as follows:

Demonstration → clock → Power Saving Mode ←

The system is turned on/off by pressing I/⏻.

Tips

- I/⏻ indicator and timer indicator (when the timer is set) light even in the Power Saving Mode.
- The timer functions in the Power Saving Mode.

Notes

- You cannot set the time in the Power Saving Mode.
- One Touch Play function does not work in the Power Saving Mode.

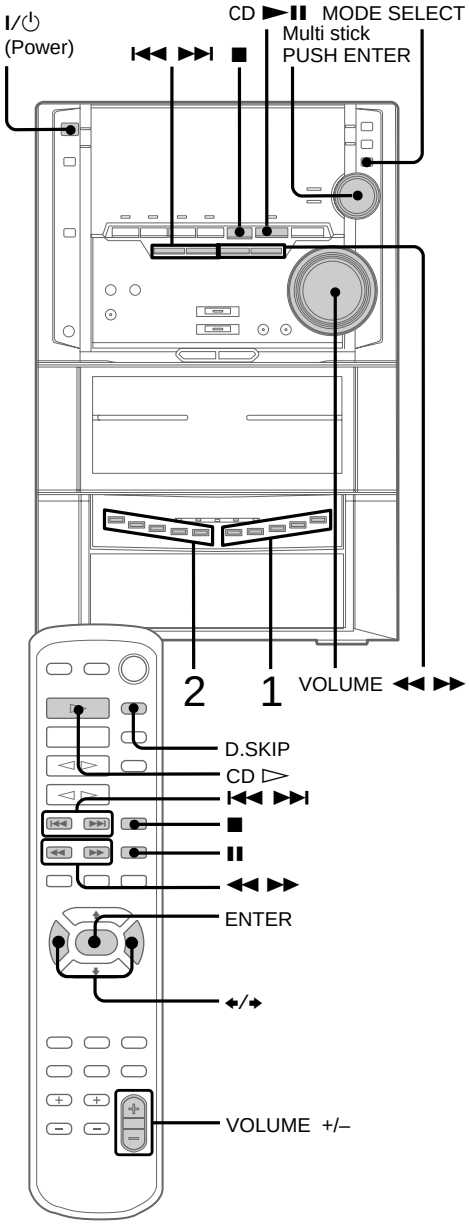
To cancel the Power Saving Mode

Press DISPLAY once to show the demonstration, twice to show the clock display.

Playing a CD

— Normal Play

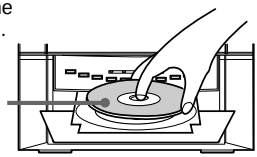
You can play up to five CDs in a row.



1 Press one of the ⏏ 1~5 buttons and place a CD on the disc tray.

If a disc is not placed properly, it will not be recognized.

Place with the label side up. When you play a CD single (8 cm CD), place it on the inner circle of the tray.



Press the same button to close the disc tray. To insert other CDs, press ⏏ of other numbers to open the disc tray.

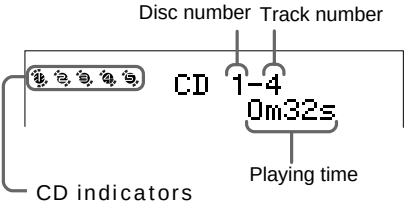
The CD presence indicator lights in the display.

Disc presence indicator

2 Press one of the DISC 1~5 buttons.

The disc tray closes and play starts.

If you press CD ►II (or CD ▷ on the remote) when the disc tray is closed, playback starts from the CD loaded on the tray whose disc pointer indicator lights.



Disc presence indicator

Disc pointor indicator

In “1 Disc” play mode (see page 14)

In “All Discs” play mode (see page 14)

continued

To	Do this
Stop play	Press ■.
Pause	Press CD ►II (or II on the remote). Press again to resume play.
Select a track	During play or pause, press ►►I (to go forward) or I◄◄ (to go back).
Find a point in a track	Press and hold down ►► or ◄◄ during play and release it at the desired point.
Select a CD in stop mode	Press one of the DISC 1~5 buttons (or D.SKIP on the remote).
Play only the CD you have selected	1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER. 2 Move the multi stick toward ◄ or ► repeatedly to select “CD Set Up ?”, then press PUSH ENTER. 3 Move the multi stick toward ◄ or ► repeatedly to select “Play Mode Set Up ?”, then press PUSH ENTER. 4 Move the multi stick toward ◄ or ► repeatedly to select “Play Mode 1 Disc”, then press PUSH ENTER.
Play all CDs	1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER. 2 Move the multi stick toward ◄ or ► repeatedly to select “CD Set Up ?”, then press PUSH ENTER. 3 Move the multi stick toward ◄ or ► repeatedly to select “Play Mode Set Up ?”, then press PUSH ENTER. 4 Move the multi stick toward ◄ or ► repeatedly to select “Play Mode All Discs”, then press PUSH ENTER.
Remove a CD	Press one of the ⏏ 1~5 buttons.
Exchange other CDs while playing	Press one of the ⏏ 1~5 buttons to open the tray that contains the CD that you want to change. When you change the CD, press the same button to close the tray.
Adjust the volume	Turn VOLUME (or press VOLUME +/– on the remote).

Tips

- Pressing CD ►II when the power is off automatically turns the power on and starts CD playback if there is a CD in the tray (One Touch Play). When the system is in the Power Saving Mode, the One Touch Play function does not work.
- You can switch from another source to the CD player and start playing a CD just by pressing CD ►II or one of the DISC 1~5 buttons (Automatic Source Selection).
- If there is no CD in the player, “No Disc” appears in the display.
- When a disc tray is holding a CD, the indicator for the tray lights orange. In the display, when a disc tray holding a CD is selected (or the CD in the disc tray is playing), the disc pointer indicator lights. When a disc tray holding a CD is not selected, the disc presence indicator lights, but the disc pointer indicator does not light. When all disc trays are empty, all the disc pointer indicators and all the disc presence indicators light.

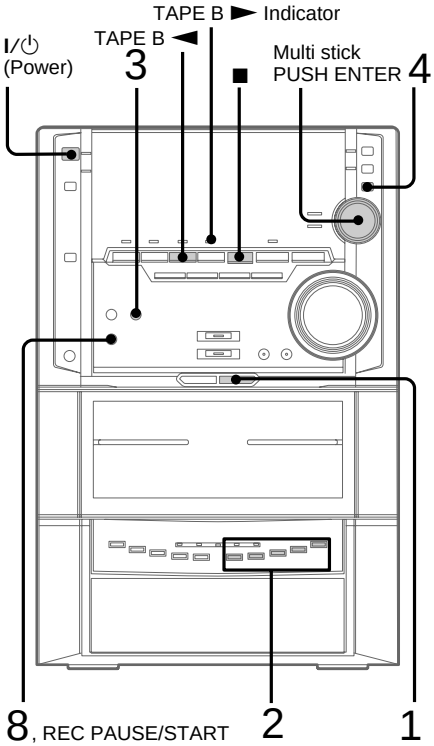
Note

When a tray has not been read by the unit, the disc presence indicator may light even though there is no disc on the tray.

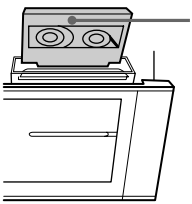
Recording a CD

— CD Synchro Recording

The CD SYNC button lets you record from a CD to a tape easily. You can use TYPE I (normal) or TYPE II (CrO_2) tapes. The recording level is adjusted automatically.



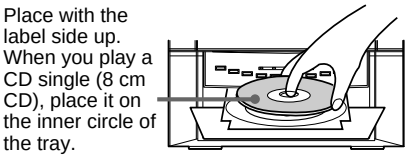
1 Press ⏏ B and insert a recordable tape into deck B.



2 Press one of the ⏏ 1~5 buttons and place a CD on the disc tray.

Press the same button to close the disc tray.

If the indicator for the tray you want to record is not lit, press D.SKIP on the remote repeatedly until it lights.



3 Press CD SYNC.

Deck B stands by for recording and the CD player stands by for playback. The TAPE B ► indicator (for the front side) lights and the REC PAUSE/START button flashes.

4 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

5 Move the multi stick toward ◄ or ► repeatedly to select “TAPE Set Up ?”, then press PUSH ENTER.

6 Move the multi stick toward ◄ or ► repeatedly to select “Direction Set Up ?”, then press PUSH ENTER.

7 Move the multi stick toward ◄ or ► repeatedly to select “1 Way” to record on one side, or “Cycle” (or “Relay”) to record on both sides, then press PUSH ENTER.

8 Press REC PAUSE/START.

Recording starts.

continued

To stop recording

Press ■.

To cancel the menu operation

Press MODE SELECT.

Tips

- If you want to record from the reverse side, press TAPE B ◄ to light its indicator after pressing CD SYNC.
- When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side.
- When you want to reduce the hiss noise in low-level high-frequency signals, do the following procedure after pressing CD SYNC.
  1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
  2 Move the multi stick toward ◄ or ► repeatedly to select “TAPE Set Up ?”, then press PUSH ENTER.
  3 Move the multi stick toward ◄ or ► repeatedly to select “DOLBY NR Set Up ?”, then press PUSH ENTER.
  4 Move the multi stick toward ◄ or ► repeatedly to select “On”, then press PUSH ENTER. “DOLBY NR” appears in the display.

  To return to the original setting, repeat steps 1 through 4 and select “Off” in step 4.

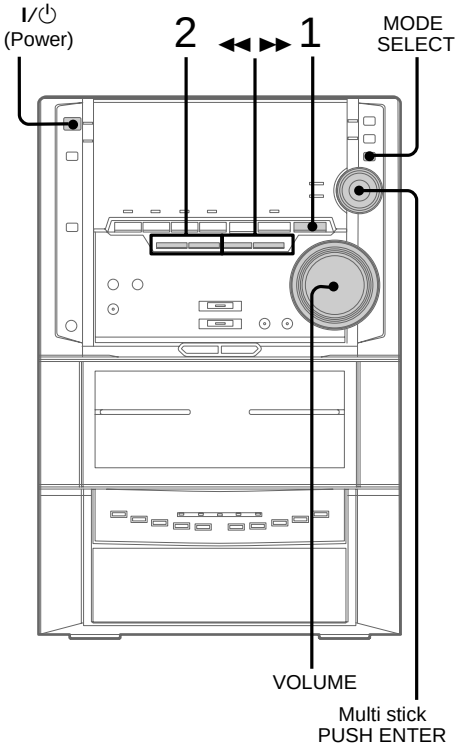
Note

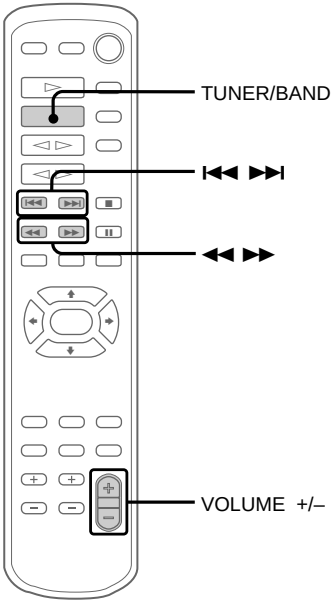
You cannot listen to other sources while recording.

Listening to the radio

— Preset Tuning

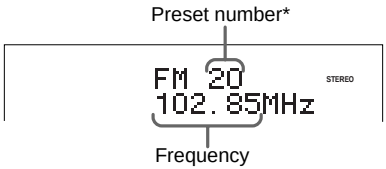
Preset radio stations in the tuner’s memory first (see “Step 4: Presetting radio stations” on page 10).





1 Press TUNER/BAND repeatedly to select FM or AM.

2 Press ⏮ or ⏭ repeatedly to tune in the desired preset station.



* When only one station is preset, “ONE PRESET” appears in the display.

To	Do this
Turn off the radio	Press I/⏻.
Adjust the volume	Turn VOLUME (or press VOLUME +/– on the remote).

To listen to non-preset radio stations

Use manual or automatic tuning in step 2. For manual tuning, press ◀◀ or ▶▶ repeatedly. For automatic tuning, press and hold ◀◀ or ▶▶.

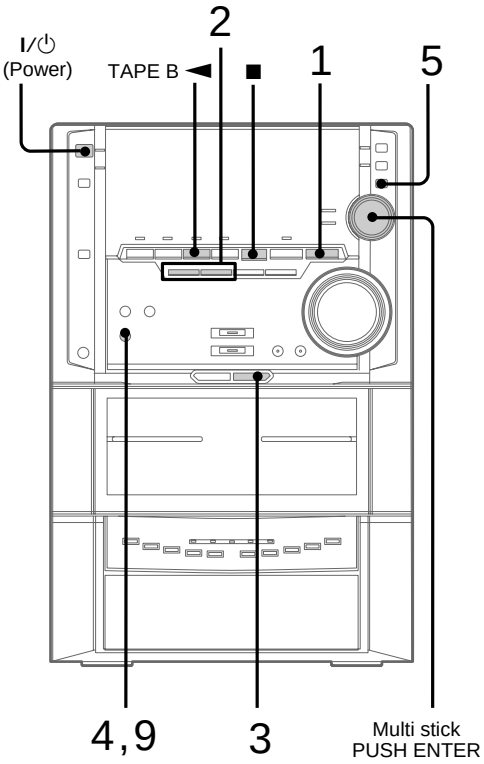
Tips

- Pressing TUNER/BAND when the power is off automatically turns the power on and tunes to the last received station (One Touch Play). When the system is in the Power Saving Mode, the One Touch Play function does not work.
- You can switch from another source to the radio just by pressing TUNER/BAND (Automatic Source Selection).
- When an FM program is noisy, do the following procedure:
  1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
  2 Move the multi stick toward ◀ or ▶ repeatedly to select “TUNER Set Up ?”, then press PUSH ENTER.
  3 Move the multi stick toward ◀ or ▶ repeatedly to select “Stereo Mono ?”, then press PUSH ENTER.
  4 Move the multi stick toward ◀ or ▶ repeatedly to select “Mono”, then press PUSH ENTER. “Mono” appears in the display.

  There will be no stereo effect, but the reception will improve. To restore the stereo effect, repeat steps 1 through 4 and select “Stereo” in step 4.
- To improve broadcast reception, reorient the respective antenna.

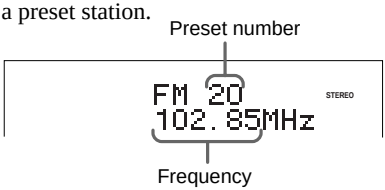
Recording from the radio

You can record the radio program on a tape by calling up a preset station. You can use TYPE I (normal) or TYPE II (CrO_2) tapes. The recording level is automatically adjusted.

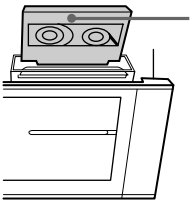


1 Press TUNER/BAND to select FM or AM.

2 Press I◄◄ or ►►I repeatedly to tune in a preset station.



3 Press ⏏ B and insert a recordable tape into deck B.



4 Press REC PAUSE/START.
Deck B stands by for recording.

5 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

6 Move the multi stick toward ◄ or ► repeatedly to select “TAPE Set Up ?”, then press PUSH ENTER.

7 Move the multi stick toward ◄ or ► repeatedly to select “Direction Set Up ?”, then press PUSH ENTER.

8 Move the multi stick toward ◄ or ► repeatedly to select “1 Way” to record on one side, or “Cycle” (or “Relay”) to record on both sides, then press PUSH ENTER.

9 Press REC PAUSE/START.
Recording starts.

To stop recording

Press ■.

To cancel the menu operation

Press MODE SELECT.

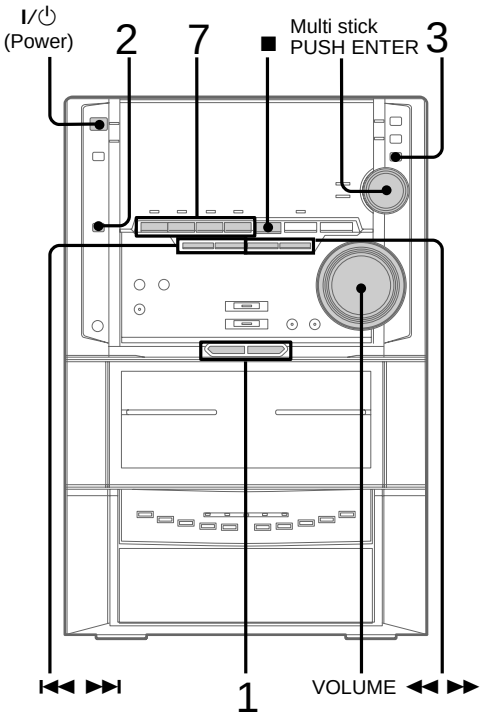
Tips

- If you want to record from the reverse side, press TAPE B ◄ to light its indicator after pressing REC PAUSE/START in step 4.
- When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side.
- To record non-preset stations, use ◄◄ and ►► in step 2 to tune in the desired station manually.
- When you want to reduce the hiss noise in low-level high-frequency signals, do the following procedure after pressing REC PAUSE/START in step 4.
  1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
  2 Move the multi stick toward ◄ or ► repeatedly to select “TAPE Set Up ?”, then press PUSH ENTER.
  3 Move the multi stick toward ◄ or ► repeatedly to select “DOLBY NR Set Up ?”, then press PUSH ENTER.
  4 Move the multi stick toward ◄ or ► repeatedly to select “On”, then press PUSH ENTER. “DOLBY NR” appears in the display.

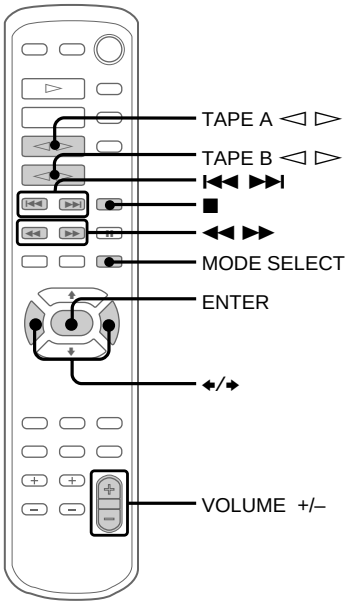
  To return to the original setting, repeat steps 1 through 4 and select “Off” in step 4.
- If noise is heard while recording from the radio, move the respective antenna to reduce the noise.

Playing a tape

You can use any type of tape, TYPE I (normal), TYPE II (CrO_2) or TYPE IV (metal), since the deck automatically detects the tape type. You can also use I◄◄ and ►►I to quickly search for songs you want to hear.

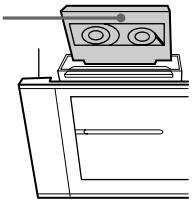


continued

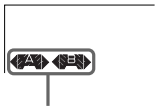


1 Press ⏏ A or ⏏ B and insert a recorded tape in deck A or B.

Insert with the side you want to play facing forward.



Tape presence indicator lights in the display.



Tape presence indicator

2 Press FUNCTION repeatedly to select "TAPE A" or "TAPE B".

3 Press MODE SELECT repeatedly to select "Set Up Mode", then press PUSH ENTER.

4 Move the multi stick toward ◀ or ▶ repeatedly to select "TAPE Set Up ?", then press PUSH ENTER.

5 Move the multi stick toward ◀ or ▶ repeatedly to select "Direction Set Up ?", then press PUSH ENTER.

6 Move the multi stick toward ◀ or ▶ repeatedly to select "1 Way" to play one side, "Cycle" to play both sides, or "Relay"* to play both decks in succession, then press PUSH ENTER.

7 Press TAPE A (or TAPE B) ►.

Press TAPE A (or TAPE B) ◄ to play the reverse side. The tape starts playing.

When using the remote, press TAPE A (or TAPE B) ◁▷ to start playback. To play reverse side, press TAPE A (or TAPE B) ◁▷ again.

* Relay play always follows the following sequence:

→ Deck A (front side) → Deck A (reverse side)
Deck B (reverse side) ← Deck B (front side) ←

To	Do this
Stop play	Press ■.
Fast-forward	Press ◀◀ or ▶▶.
Rewind	Press ◀◀ or ▶▶.
Remove the cassette	Press ⏏ A or ⏏ B.
Adjust the volume	Turn VOLUME (or press VOLUME +/– on the remote).

* This tape deck does not have play pause function. You cannot use ❚❚ to pause tape playback.

To cancel the menu operation

Press MODE SELECT.

Tips

- Pressing TAPE A (or TAPE B) ► or ◄ when the power is off automatically turns the power on and starts tape playback if there is a tape in the deck (One Touch Play). When the system is in the Power Saving Mode, the One Touch Play function does not work.
- You can switch from another source to the tape deck just by pressing TAPE A (or TAPE B) ► or ◄ (Automatic Source Selection).
- When you want to reduce the hiss noise in low-level high-frequency signals, do the following procedure:
  1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
  2 Move the multi stick toward ◄ or ► repeatedly to select “TAPE Set Up ?”, then press PUSH ENTER.
  3 Move the multi stick toward ◄ or ► repeatedly to select “DOLBY NR Set Up ?”, then press PUSH ENTER.
  4 Move the multi stick toward ◄ or ► repeatedly to select “On”, then press PUSH ENTER. “DOLBY NR” appears in the display.

  To return to the original setting, repeat steps 1 through 4 and select “Off” in step 4.

Searching for the beginning of a track (AMS*)

During playback, press ⏮ or ⏭ repeatedly to go forward in the same direction as the ◄ or ► indicator. Press ⏮ or ⏭ repeatedly in the opposite direction to go back.

The search direction, + (forward) or – (back), and number of songs being skipped (1~9) appear in the display.

Example: searching forward 2 songs

* AMS (Automatic Music Sensor)

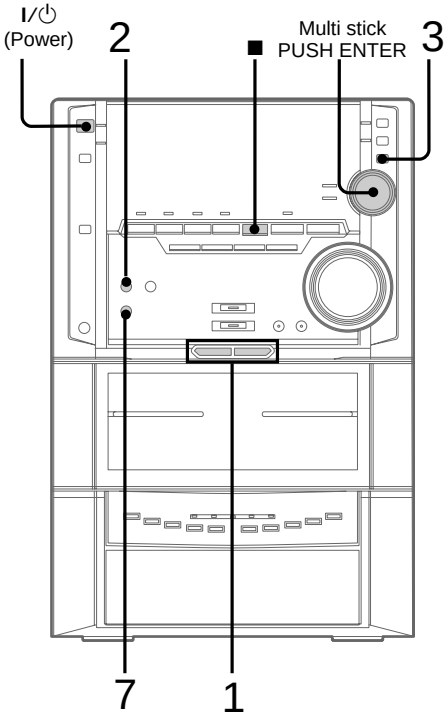
Notes

- The deck stops automatically after repeating the sequence five times.
- The AMS function may not operate correctly under the following circumstances:
  – When the unrecorded space between songs is less than 4 seconds long.
  – If completely different information is recorded on the left and right channels.
  – When there are continuous sections of extremely low level or low frequency sound (like those of a baritone sax).
  – When the unit is placed near a television. (In this case, we recommend moving the unit away from the television or turning off the television.)

Recording from a tape

— High-speed Dubbing

You can use TYPE I (normal) or TYPE II (CrO_2) tapes. The recording level is automatically adjusted.



1 Press ⏏ A and ⏏ B and insert a recorded tape in deck A and a recordable tape in deck B.

2 Press HI-DUB.
Deck B stands by for recording.

3 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

4 Move the multi stick toward ◀ or ▶ repeatedly to select “TAPE Set Up ?”, then press PUSH ENTER.

5 Move the multi stick toward ◀ or ▶ repeatedly to select “Direction Set Up ?”, then press PUSH ENTER.

6 Move the multi stick toward ◀ or ▶ repeatedly to select “1 Way” to record on one side, or “Cycle” (or “Relay”) to record on both sides, then press PUSH ENTER.

7 Press REC PAUSE/START.
Dubbing starts.

To stop dubbing

Press ■.

To cancel the menu operation

Press MODE SELECT.

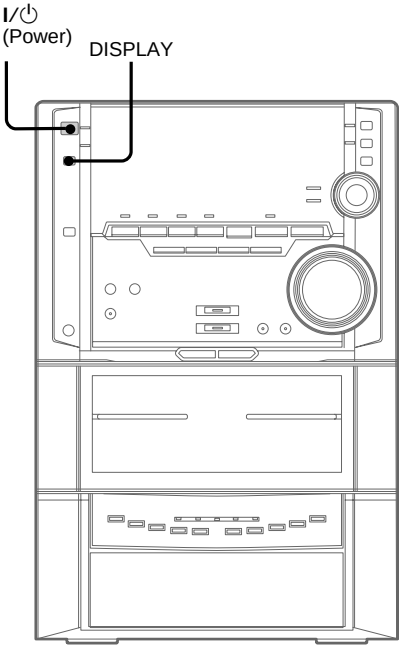
Tips

- When you dub on both sides, start recording from the front side. If you record from the reverse side, recording stops at the end of the reverse side.
- If you select “Cycle” in the “Direction Set Up ?” menu when the tapes you use have different lengths, the tape in each deck reverses independently. If you select “Relay”, the tapes in both decks reverse together.
- You don’t have to set DOLBY NR, since the tape in deck B is automatically recorded in the same state as the tape in deck A.

Using the CD display

You can check the remaining time of the current track or that of the CD.

When a CD TEXT disc is loaded, you can check the information stored on the disc, such as the disc titles or artist names. When the unit detects CD TEXT discs, the “CD TEXT” indication appears in the display.



➡ Press DISPLAY.

Each time you press the button during normal playback or when playback is stopped, the display changes as follows:

During normal playback

Playing time of the current track
↓
Remaining time of the current track
↓
Remaining time of current CD (“1 Disc”) or “--m--s” display (“All Discs”)
↓
Title name of the current track*
↓
Clock display (for eight seconds)
↓
Preset file name or “EFFECT ON (OFF)”

When playback is stopped

During Program Play mode when there is a program

The last track number of the program and the total playing time
↓
Total number of programmed tracks (for eight seconds)
↓
Title name and the artist name of the CD*
↓
Clock display (for eight seconds)
↓
Preset file name or “EFFECT ON (OFF)”

In other conditions

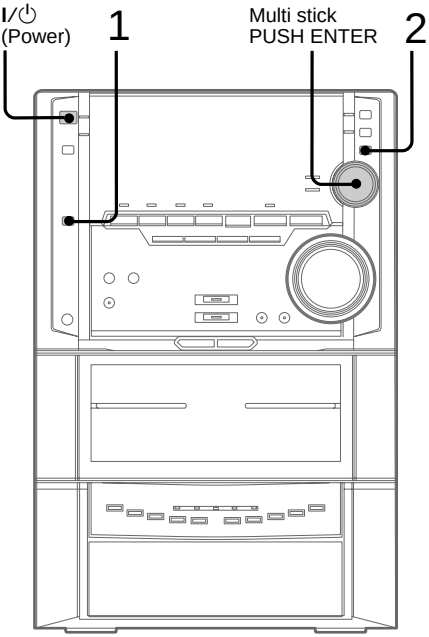
Total number of tracks and total playing time
↓
Title name and the artist name of the CD*
↓
Clock display (for eight seconds)
↓
Preset file name or “EFFECT ON (OFF)”

* With CD TEXT discs only (certain characters cannot be displayed). Depending on the disc, some CD TEXT information may not appear.

Playing the CD tracks repeatedly

— Repeat Play

This function lets you repeat a single CD or all CDs in Normal Play, Shuffle Play and Program Play.



1 Press FUNCTION repeatedly until “CD” appears in the display, then place a CD.

2 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

3 Move the multi stick toward ◄ or ► repeatedly to select “CD Set Up ?”, then press PUSH ENTER.

4 Move the multi stick toward ◄ or ► repeatedly to select “Repeat Set Up ?”, then press PUSH ENTER.

5 Move the multi stick toward ◄ or ► repeatedly to select “Repeat 1” or “Repeat All”, then press PUSH ENTER.

When “Repeat 1” is selected, one track is repeated. When “Repeat All” is selected, playback varies according to the setting of “Play Mode Set Up ?” menu.

Play Mode*	Repeat
1 Disc	all tracks on the current CD up to five times
1 Shuffle	
All Discs	all tracks on the all CDs up to five times
All Shuf	Not available
Program	the Program up to five times

* To change the Play Mode setting, see page 14.

To cancel the menu operation

Press MODE SELECT.

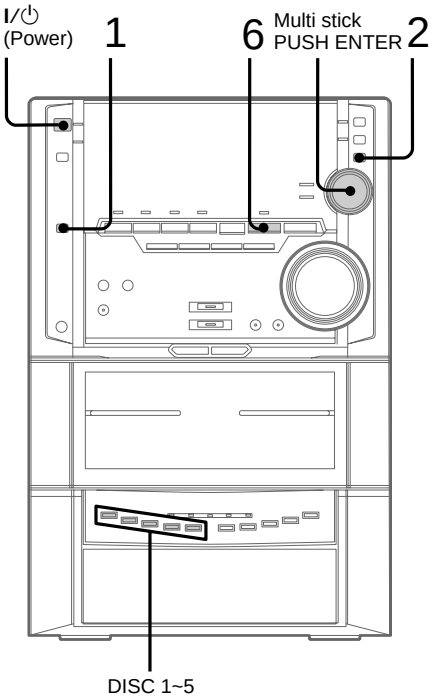
To cancel Repeat Play

Select “Repeat Off” in step 5.

Playing the CD tracks in random order

— Shuffle Play

You can play all the tracks on one CD or all CDs in random order.



1 Press FUNCTION repeatedly until “CD” appears in the display, then place a CD.

2 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

3 Move the multi stick toward ◀ or ▶ repeatedly to select “CD Set Up ?”, then press PUSH ENTER.

4 Move the multi stick toward ◀ or ▶ repeatedly to select “Play Mode Set Up ?”, then press PUSH ENTER.

5 Move the multi stick toward ◀ or ▶ repeatedly to select “All Shuf” or “1 Shuffle”, then press PUSH ENTER.

“All Shuf” shuffles all the CDs in the player.
“1 Shuffle” shuffles the CD whose DISC pointer indicator is lit.

6 Press CD ►II.

All the tracks play in random order.

To cancel the menu operation

Press MODE SELECT.

To cancel Shuffle Play

1 Perform steps 1 through 4 in the above procedure.

2 Move multi stick toward ◀ or ▶ repeatedly to select “All Discs” or “1 Disc”, then press PUSH ENTER.

The tracks continue playing in their original order.

To select a desired CD

Press DISC 1~5.

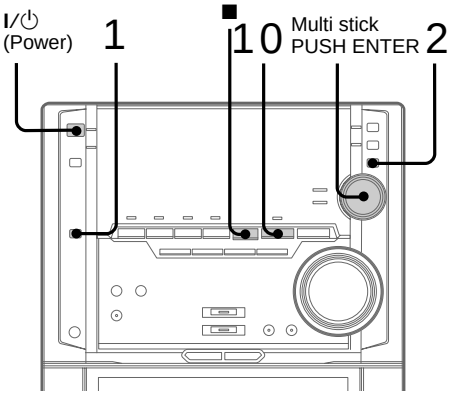
Tips

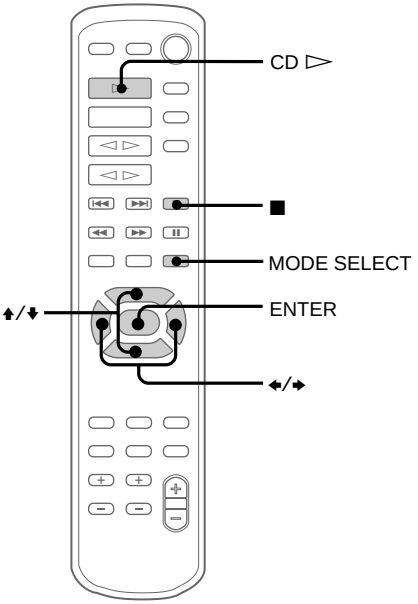
- To skip a track, press ►►I.
- You can start Shuffle Play during Normal Play by selecting “All Shuf” or “1 Shuffle”.

Programming the CD tracks

— Program Play

You can make a program of up to 32 tracks from all the CDs in the order you want them to be played.





1 Press FUNCTION repeatedly until “CD” appears in the display, then place a CD.

2 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

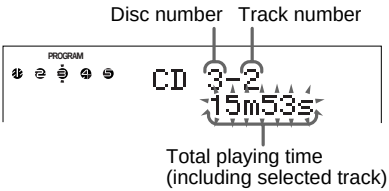
3 Move the multi stick toward ◄ or ► repeatedly to select “CD Set Up ?”, then press PUSH ENTER.

4 Move the multi stick toward ◄ or ► repeatedly to select “Program Set ?”, then press PUSH ENTER.

5 Move the multi stick toward ▲ or ▼ repeatedly to select a CD.

If you want to program all the tracks on a CD at once, select a CD in this step, then skip step 6 and continue with step 7.

6 Move the multi stick toward ◄ or ► repeatedly to select the desired track.



7 Press PUSH ENTER.

The track is programmed. When all the tracks are selected, “AL” appears in the display and all the tracks are programmed as one step. The program step number appears, followed by the total playing time.

8 To program additional tracks, repeat steps 5 through 7.
Skip step 5 to select tracks from the same disc.

9 Press PUSH ENTER.

10 Press CD ►II.
All the tracks play in the order you selected.

To cancel the menu operation

Press MODE SELECT.

To cancel Program Play

1 Press FUNCTION repeatedly until “CD” appears in the display.
2 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
3 Move the multi stick toward ◄ or ► repeatedly to select “CD Set Up ?”, then press PUSH ENTER.
4 Move the multi stick toward ◄ or ► repeatedly to select “Play Mode Set Up ?”, then press PUSH ENTER.
5 Move the multi stick toward ◄ or ► repeatedly to select “All Discs” or “1 Disc”, then press PUSH ENTER.

The tracks continue playing in their original order.

To add tracks to the existing program

Follow steps 1 through 9 when playback is stopped. Add the desired track after the last programmed step.

To check the program

1 Press FUNCTION repeatedly until “CD” appears in the display.
2 Press MODE SELECT repeatedly to select “Set Up Mode” then press PUSH ENTER.
3 Move the multi stick toward ◄ or ► repeatedly to select “CD Set Up ?”, then press PUSH ENTER.
4 Move the multi stick toward ◄ or ► repeatedly to select “PGM Check Clear ?”, then press PUSH ENTER.
5 Move the multi stick toward ◄ or ►.
The disc number and the track number appears.
6 After checking the program, press MODE SELECT.

To clear a desired step from the program

1 Press FUNCTION repeatedly until “CD” appears in the display.
2 Press MODE SELECT repeatedly to select “Set Up Mode” then press PUSH ENTER.
3 Move the multi stick toward ◄ or ► repeatedly to select “CD Set Up ?”, then press PUSH ENTER.
4 Move the multi stick toward ◄ or ► repeatedly to select “PGM Check Clear ?”, then press PUSH ENTER.
5 Move the multi stick toward ◄ or ►.
The disc number and the track number appears.
6 When you want to clear the displayed track, press PUSH ENTER.
“Clear ?” appears in the display.
7 Press PUSH ENTER again.
The track displayed in step 5 is cleared from the program.

To clear the entire program

1 Press FUNCTION repeatedly until “CD” appears in the display.
2 Press MODE SELECT repeatedly to select “Set Up Mode” then press PUSH ENTER.
3 Move the multi stick toward ◄ or ► repeatedly to select “CD Set Up ?”, then press PUSH ENTER.
4 Move the multi stick toward ◄ or ► repeatedly to select “PGM Check Clear ?”, then press PUSH ENTER.
5 To clear the entire program, move the multi stick toward ◄ or ► repeatedly to select “PGM All Clear” then press PUSH ENTER.
6 “PGM All Clear ?” appears. Press PUSH ENTER again. Entire program is cleared.

Tips

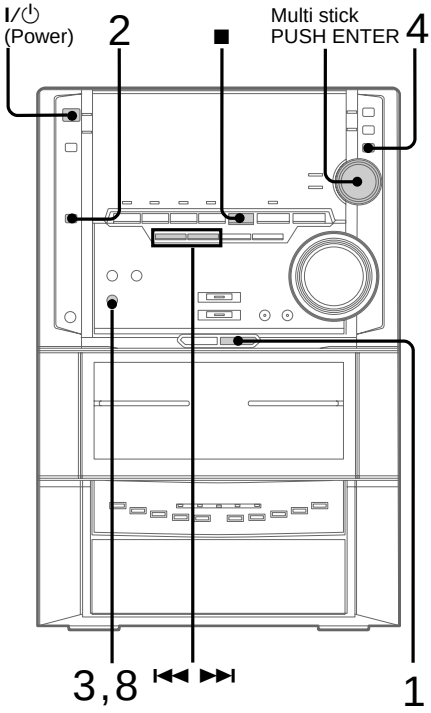
- You can make a program in the “Play Mode Set Up ?” menu. Select “Play Mode Set Up ?” in step 4, then move the multi stick toward ◄ or ► repeatedly to select “Program” and press PUSH ENTER. Then follow steps 5 to 10.
- The program you made remains in the system’s memory even after it has been played back. Press CD ►II to play the same program again.
- If “--m--s” appears instead of the total playing time during programming, this means:
  – you have programmed a track number which exceeds 20.
  – the total playing time has exceeded 100 minutes.

Note

The program remains in the memory until it is cleared by following the steps of “To clear the entire program”. However, when using Tape Select Edit function, the program is cleared automatically.

Recording on a tape manually

You can record from CD, tape, or radio as you like. For example, you can record just the songs you want or record from the middle of the tape. The recording level is adjusted automatically.



1 Insert a recordable tape into deck B.

2 Press FUNCTION repeatedly until the source you want to record (e.g., CD) appears.

3 Press REC PAUSE/START.

Deck B stands by for recording. The TAPE B ► indicator (for front side) lights.

4 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

5 Move the multi stick toward ◄ or ► repeatedly to select “TAPE Set Up ?”, then press PUSH ENTER.

6 Move the multi stick toward ◄ or ► repeatedly to select “Direction Set Up ?”, then press PUSH ENTER.

7 Move the multi stick toward ◄ or ► repeatedly to select “1 Way” to record on one side, or “Cycle” (or “Relay”) to record on both sides, then press PUSH ENTER.

8 Press REC PAUSE/START.

Recording starts.

9 Start playing the source to be recorded.

To	Press
Stop recording	■.
Pause recording	REC PAUSE/START.

To cancel the menu operation

Press MODE SELECT.

Tips

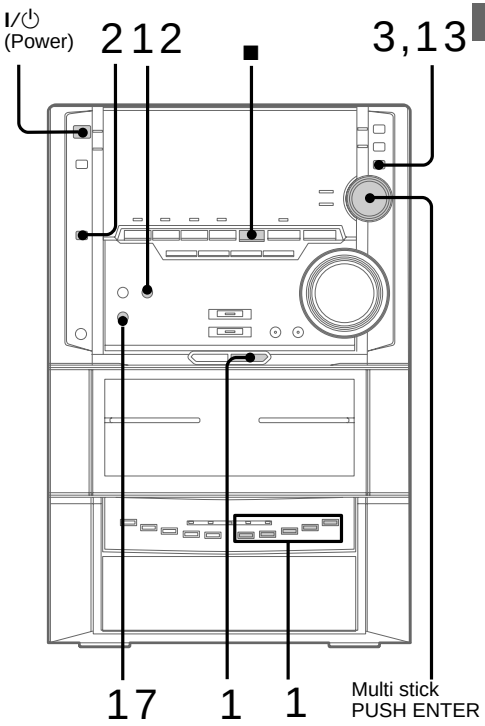
- If you want to record from the reverse side, press TAPE B ◄ to light its indicator after pressing REC PAUSE/START in step 3.
- When you want to reduce the hiss noise in low-level high-frequency signals, do the following procedure after pressing REC PAUSE/START in step 3.
  1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
  2 Move the multi stick toward ◄ or ► repeatedly to select “TAPE Set Up ?”, then press PUSH ENTER.
  3 Move the multi stick toward ◄ or ► repeatedly to select “DOLBY NR Set Up ?”, then press PUSH ENTER.
  4 Move the multi stick toward ◄ or ► repeatedly to select “On”, then press PUSH ENTER. “DOLBY NR” appears in the display.

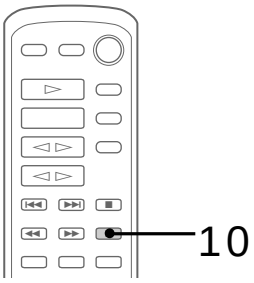
  To return to the original setting, repeat steps 1 through 4 and select “Off” in step 4.
- When recording from a CD, you can use I◄◄ or ►►I to select tracks during rec pause mode (after pressing REC PAUSE/START in step 3 and before pressing again in step 8).

Recording a CD by specifying track order

— Program Edit

You can record tracks from all the CDs in the order you want. When programming, make sure the playing times for each side do not exceed the length of one side of the tape.





continued

Recording a CD by specifying track order (continued)

1 Place a CD and insert a recordable tape into deck B.

2 Press FUNCTION repeatedly until “CD” appears in the display.

3 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

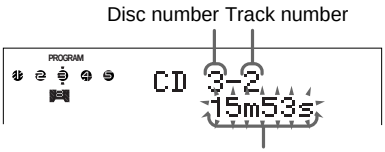
4 Move the multi stick toward ◄ or ► repeatedly to select “CD Set Up ?”, then press PUSH ENTER.

5 Move the multi stick toward ◄ or ► repeatedly to select “Program Set ?”, then press PUSH ENTER.

6 Move the multi stick toward ▲ or ▼ repeatedly to select a CD.

If you want to program all the tracks on a CD at once, select a CD in this step, then skip step 7 and continue with step 8.

7 Move the multi stick toward ◄ or ► repeatedly to select the desired track.



8 Press PUSH ENTER.

The track is programmed. When all the tracks are selected, “AL” appears in the display and all the tracks are programmed as one step. The program step number appears, followed by the total playing time.

9 To program additional tracks to be recorded on side A, repeat steps 6 through 8.

Skip step 6 to select tracks from the same disc.

10 Press ❚❚ on the remote to insert a pause at the end of side A.

“P” appears in the display and the total playing time resets to “0m00s” in the display.

11 Repeat steps 7 and 8 for tracks from the same disc or steps 6 to 8 for tracks from another disc to program the remaining tracks to be recorded on side B.

12 Press CD SYNC.

Deck B stands by for recording and the CD player stands by for playback. The TAPE B ► indicator (for front side) lights and the REC PAUSE/START button flashes.

13 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

14 Move the multi stick toward ◄ or ► repeatedly to select “TAPE Set Up ?”, then press PUSH ENTER.

15 Move the multi stick toward ◀ or ▶ repeatedly to select “Direction Set Up ?”, then press PUSH ENTER.

16 Move the multi stick toward ◀ or ▶ repeatedly to select “1 Way” to record on one side, or “Cycle” (or “Relay”) to record on both sides, then press PUSH ENTER.

17 Press REC PAUSE/START.
Recording starts.

To stop recording

Press ■.

To cancel the menu operation

Press MODE SELECT.

To check the order

1 Press FUNCTION repeatedly until “CD” appears in the display.
2 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
3 Move the multi stick toward ◀ or ▶ repeatedly to select “CD Set Up ?”, then press PUSH ENTER.
4 Move the multi stick toward ◀ or ▶ repeatedly to select “PGM Check Clear ?”, then press PUSH ENTER.
5 Move the multi stick toward ◀ or ▶.
The disc number and the track number appears.
6 After checking the program, press MODE SELECT.

To cancel Program Edit

1 Press FUNCTION repeatedly until “CD” appears in the display.
2 Pres MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
3 Move the multi stick toward ◀ or ▶ repeatedly to select “CD Set Up ?”, then press PUSH ENTER.
4 Move the multi stick toward ◀ or ▶ repeatedly to select “Play Mode Set Up ?”, then press PUSH ENTER.
5 Move multi stick toward ◀ or ▶ repeatedly to select “All Discs” or “1 Disc”, then press PUSH ENTER.

The tracks continue playing in their original order.

Tip

When you want to reduce the hiss noise in low-level high-frequency signals, do the following procedure after pressing CD SYNC in step 12 in the previous page.

1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
2 Move the multi stick toward ◀ or ▶ repeatedly to select “TAPE Set Up ?”, then press PUSH ENTER.
3 Move the multi stick toward ◀ or ▶ repeatedly to select “DOLBY NR Set Up ?”, then press PUSH ENTER.
4 Move the multi stick toward ◀ or ▶ repeatedly to select “On”, then press PUSH ENTER.
“DOLBY NR” appears in the display.

To return to the original setting, repeat steps 1 through 4 and select “Off” in step 4.

continued

Selecting tape length automatically —*Tape Select Edit*

You can check the most suitable tape length for recording a CD. Note that you cannot use Tape Select Edit for discs containing over 20 tracks.

1 Insert a CD.

2 Press FUNCTION repeatedly until “CD” appears in the display.

3 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

4 Move the multi stick toward ◀ or ▶ repeatedly to select “CD Set Up ?”, then press PUSH ENTER.

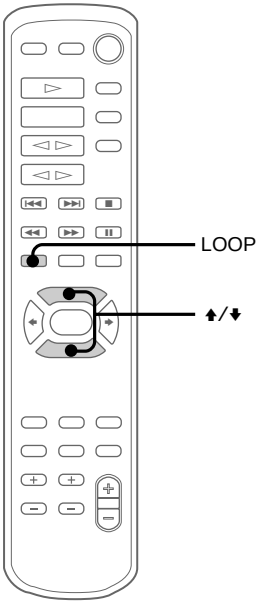
5 Move the multi stick toward ◀ or ▶ repeatedly to select “CD Edit Start ?”, then press PUSH ENTER.

The required tape length for the currently selected CD appears, followed by the total playing time for side A and side B respectively.

Looping part of a CD

— Loop

With the Loop function, you can repeat part of a CD during playback. This lets you create original recordings.



➡ Press and hold LOOP on the remote during playback at the point you want to start the Loop function, and release to resume normal play.

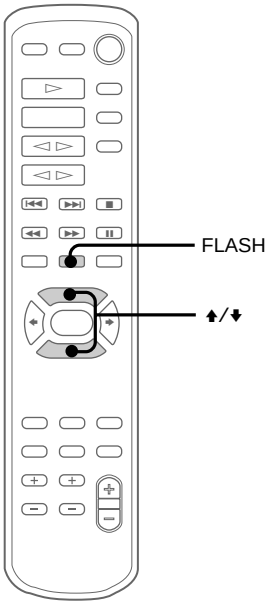
To adjust the loop length

Press ▲ or ▼ repeatedly while holding LOOP on the remote to select different loop lengths (LOOP 1~20).

Flashing part of a CD

— Flash

With the Flash function, you can “flash” the CD sound during playback. This lets you create original recordings.



➡ Press and hold FLASH on the remote during playback at the point you want to start the Flash function, and release to resume normal play.

To adjust the flash length

Press ↑ or ↓ repeatedly while holding FLASH on the remote to select different flash lengths (FLASH 1~20).

To use LOOP and FLASH together

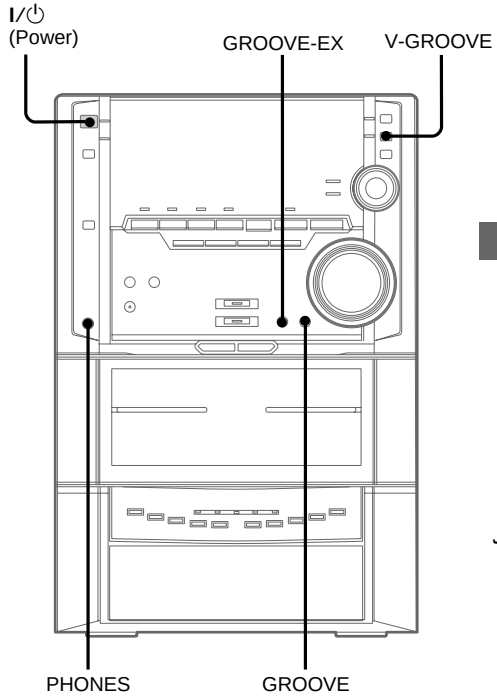
Press and hold both LOOP and FLASH at the same time.

Notes

- The loop and flash length cannot be adjusted during this operation. Adjust the loop and flash lengths independently beforehand if necessary.
- To record the flash effect, use the analog (MD OUT) connections or this unit’s tape deck.

Adjusting the sound

You can reinforce the bass, create a more powerful sound, or listen with headphones.



For a powerful sound (GROOVE)

Press GROOVE. The volume switches to power mode, DBFB* is automatically set to full strength, the equalizer curve changes, and the GROOVE button lights. Press GROOVE again to return to the previous volume.

* DBFB = Dynamic Bass Feedback

continued

To reinforce lower bass sound (V-GROOVE)

Press V-GROOVE. The lower bass frequency of the music you are listening to is powerfully reinforced, DBFB is automatically set to full strength, the equalizer curves changes, loudness increases and the V-GROOVE button lights. Press V-GROOVE again to return to the previous level.

To produce a clear sound (GROOVE-EX)

Press GROOVE-EX. The higher frequencies of the music you are listening to is reinforced, DBFB is automatically set to full strength, the equalizer curves changes, loudness increases and the GROOVE-EX button lights. Press GROOVE-EX again to return to the previous level.

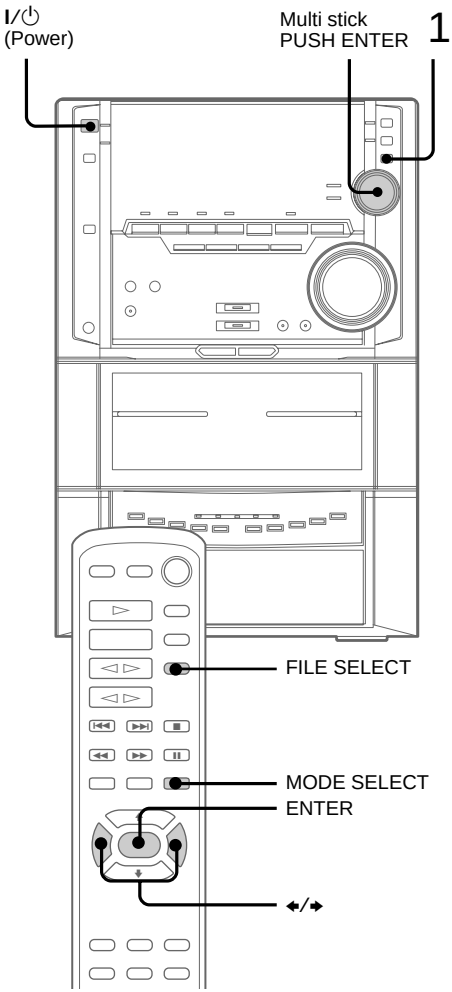
To listen through the headphones

Connect the headphones to PHONES jack. No sound will come out of the speakers.

Selecting the preset audio effect file

The audio effect file menu lets you select the sound characteristic according to the sound you are listening to.

Selecting the effect from the music menu



1 Press MODE SELECT repeatedly to select “Sound Mode”, then press PUSH ENTER.

2 Move the multi stick toward ◀ or ▶ repeatedly to select “File Select”, then press PUSH ENTER.

3 Move the multi stick toward ◀ or ▶ repeatedly to select the preset you desire.
The preset name appears in the display.
See the chart “Music menu options”.

4 Press PUSH ENTER.

To cancel the menu operation

Press MODE SELECT.

Tip

When using the remote, press FILE SELECT repeatedly until the effect name you want appears.

To cancel the effect

Select “Effect Off” in step 2.

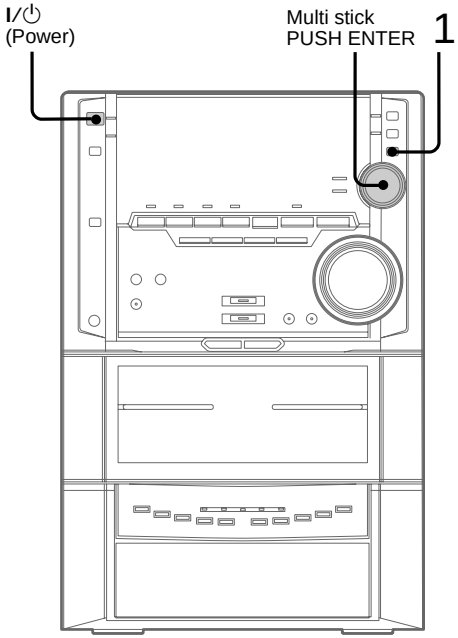
Music menu options

Effect	For
ROCK POP JAZZ DANCE SOUL	Standard music sources
ORIENTAL ACTION DRAMA GAME SF	Soundtracks and special listening situations
P FILE 1~5	Personal file*

* The personal file function lets you store your own effects (see “Creating a personal audio effect file” on page 40).

Changing the spectrum analyzer display

You can enjoy changing the display while listening to the music.



1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

2 Move the multi stick toward ◄ or ► repeatedly to select “Display Set Up ?”, then press PUSH ENTER.

3 Move the multi stick toward ◄ or ► repeatedly to select “Spectrum Set Up ?”, then press PUSH ENTER.

4 Move the multi stick toward ◄ or ► repeatedly to select the effect you desire, press PUSH ENTER.

Each time you move the multi stick toward ◄ or ►, the display changes as follows:

Spectrum 1
↕
Spectrum 2
↕
Spectrum 3
↕
Spectrum Off

To cancel the menu operation

Press MODE SELECT.

To adjust the brightness of the display

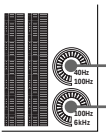
In step 3 above, select “Dimmer Set Up ?”. Move the multi stick toward ◄ or ► repeatedly to select the effect you desire, press PUSH ENTER.

Each time you move the multi stick toward ◄ or ► , the display changes as follows:

Dimmer Off
↕
Dimmer 1
↕
Dimmer 2
↕
Dimmer 3
↕
Dimmer 4
↕
Dimmer 5

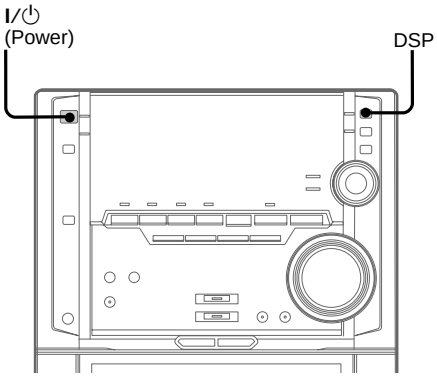
To check the frequency level

The meters in the display rise and fall according to the strength of beat (high frequency and low frequency).



Selecting surround effects

You can enjoy surround effects.



➡ Press DSP repeatedly to select the surround effect you desire.

SURROUND ON: Reproduces stereo sources in surround sound. *

HALL: Reproduces the acoustics of a concert hall.**

THEATER: Reproduces the acoustics of a movie theater.**

ENHANCED THEATER: Reproduces the acoustics of a large movie theater.**

DSP OFF: Turns off the DSP mode.

* "**SURROUND**" appears in the display.

**The indicator on the side of DSP button lights.

Tip

If you want to memorize the effect, store it into a personal file (see "Creating a personal audio effect file" on page 40).

Note

When you choose other sound effects, the surround effects will be canceled.

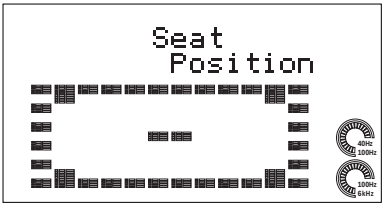
To adjust the seat position

When you select HALL, THEATER or ENHANCED THEATER, you can adjust the surround balance and feel as if you are there.

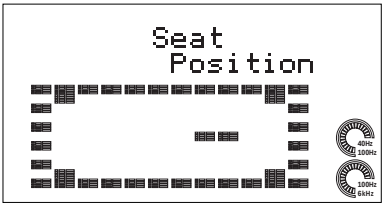
1 Press MODE SELECT repeatedly to select "Sound Mode", then press PUSH ENTER.

2 Move the multi stick toward ◀ or ▶ repeatedly to select "Seat Position", then press PUSH ENTER.

3 Move the multi stick toward ▲ or ▼ repeatedly to adjust the front and back position (5 steps).



4 Move the multi stick toward ◀ or ▶ repeatedly to adjust the left and right position (5 steps).



5 Press PUSH ENTER.

To cancel the menu operation

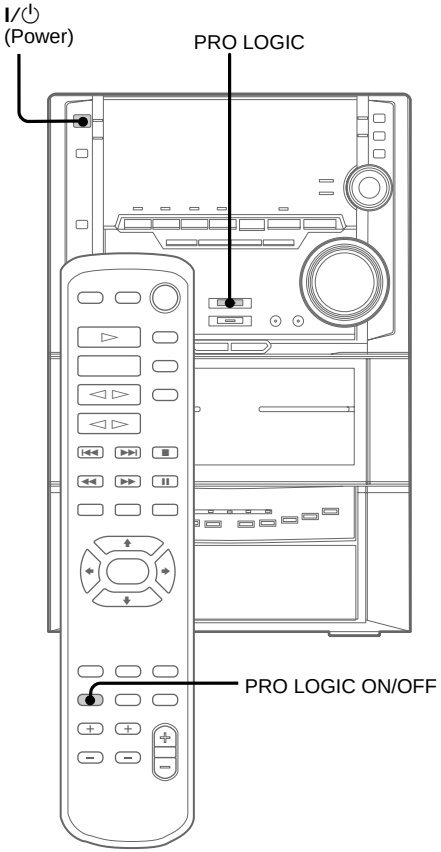
Press MODE SELECT.

Notes

- The surround balance adjusted here does not affect the Dolby Pro Logic Surround sound and 5.1 CH INPUT sound.
- Under the following circumstances, DSP effects other than "SURROUND ON", will not function.
  - When using headphones
  - When TAPE B is in REC PAUSE mode
  - When recording using TAPE B.

Enjoying Dolby Pro Logic Surround sound

You can enjoy the Dolby Pro Logic Surround sound of videos that are Dolby Surround encoded (DOLBY SURROUND). Complete the setup and adjustments first (see page 7).



➡ Press PRO LOGIC (or PRO LOGIC ON/OFF on the remote) while playing a program source.

The indicator on PRO LOGIC button lights up.

To cancel the Dolby Pro Logic Surround sound

Press PRO LOGIC (or PRO LOGIC ON/OFF on the remote) again to turn off the indicator on PRO LOGIC button.

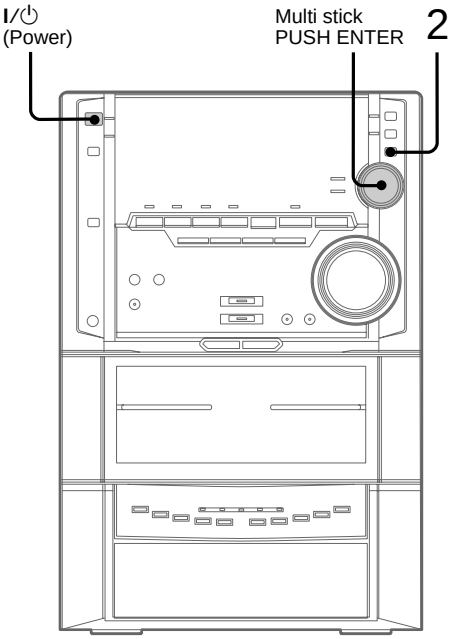
Notes

- You cannot use both Dolby Pro Logic Surround sound and the DSP surround effects at the same time.
- When recording, Dolby Pro Logic Surround is canceled automatically.
- Under the following circumstances, this effect will not function.
  - When using headphones
  - When TAPE B is in REC PAUSE mode
  - When recording using TAPE B.

Controlling the graphic equalizer

You can control the sound by raising or lowering the levels of specific frequency ranges.

Before operation, first select the audio effect you want for your basic sound.

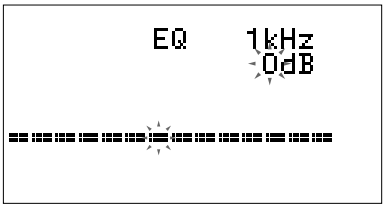


1 Select the audio effect you want for your basic sound (see “Selecting the preset audio effect file” on page 34).

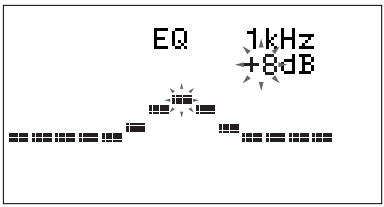
2 Press MODE SELECT repeatedly to select “Sound Mode”, then press PUSH ENTER.

3 Move the multi stick toward ◄ or ► repeatedly to select “Equalizer Control”, then press PUSH ENTER.

4 Move the multi stick toward ◄ or ► repeatedly to select a frequency band (5 steps).



5 Move the multi stick toward ▲ or ▼ repeatedly to adjust the level (9 steps).



6 Repeat steps 4 and 5.

7 Press PUSH ENTER when finished.

To cancel the menu operation

Press MODE SELECT.

Note

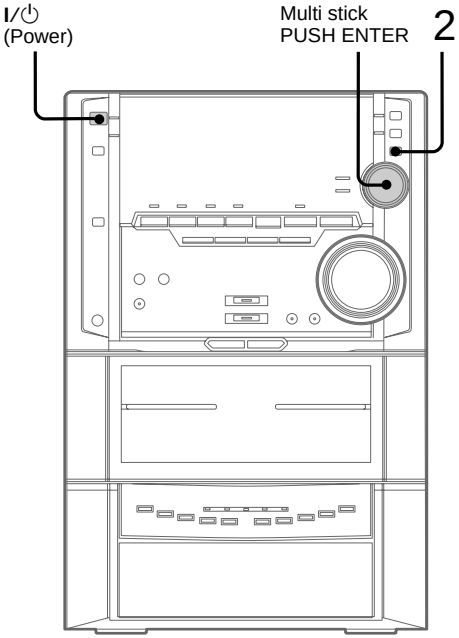
If you choose another audio effect (other than “Effect Off”), the adjusted sound effect is lost. To retain the adjusted sound effect for future use, store it in a personal file. (See “Creating a personal audio effect file” on page 40.)

Creating a personal audio effect file

— Personal file

You can create a personal file of audio patterns (surround effect and graphic equalizer) and store them in the memory of the unit. The personal files can later be used when you listen to a favorite tape, CD, or radio program. You can create up to five audio files.

Before operation, first select the audio effect you want for your basic sound.



1 Obtain the sound effect you want by controlling the graphic equalizer (see page 39) and selecting surround effect (see page 37).

2 Press MODE SELECT repeatedly to select “Sound Mode”, then press PUSH ENTER.

3 Move the multi stick toward ◄ or ► repeatedly to select “P File Memory”, then press PUSH ENTER.

The personal file number appears in the display.

4 Move the multi stick toward ◄ or ► repeatedly to select the file number (P FILE 1~5) where you want to store the sound effect.

5 Press PUSH ENTER.

The adjusted sound effects are stored under the selected file number. The settings previously stored at this memory location are erased and replaced by the new settings.

To cancel the menu operation

Press MODE SELECT.

To call up the personal file

1 Press MODE SELECT repeatedly to select “Sound Mode”, then press PUSH ENTER.

2 Move the multi stick toward ◄ or ► repeatedly to select “File Select”, then press PUSH ENTER.

3 Move the multi stick toward ◄ or ► repeatedly to select the file number you desire (P FILE 1~5).

4 Press PUSH ENTER.

Tip

The sound effect you stored are retained for half a day even if you unplug the power cord or if a power failure occurs.

Using the Radio Data System (RDS)

(For European model only)

What is the Radio Data System?

Radio Data System (RDS) is a broadcasting service that allows radio stations to send additional information along with the regular program signal. This tuner offers convenient RDS features like station name display and location of stations by program type. RDS is available only for FM stations.*

Note

RDS may not work properly if the station you are tuned to is not transmitting the RDS signal properly or if the signal strength is weak.

* Not all FM stations provide RDS service, nor do they provide the same type of services. If you are not familiar with the RDS system, check with your local radio stations for details on RDS services in your area.

Receiving RDS broadcasts

➡ Simply select a station from the FM band. When you tune in a station that provides RDS services, the station name appears in the display.

To check the RDS information

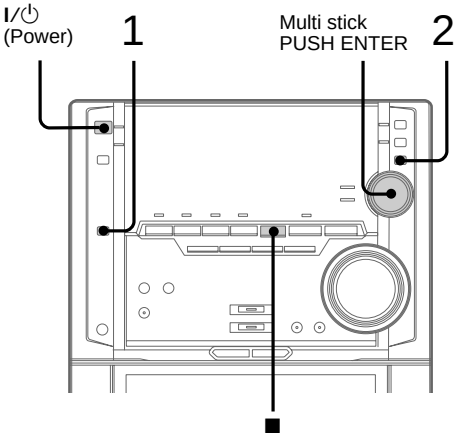
Each time you press DISPLAY, the display changes as follows:

Station name*
↓
Frequency
↓
Program type*
↓
Clock display
↓
Preset file name or
"EFFECT ON (OFF)"

* If the RDS broadcast is not received, the station name and program type may not appear in the display.

Locating a station by program type (PTY)

You can locate a station you want by selecting a program type. The unit tunes in the type of programs currently being broadcast from the RDS stations stored in the tuner's preset memory.



continued

1 Press FUNCTION repeatedly until "TUNER" appears in the display.

2 Press MODE SELECT repeatedly to select "Set Up Mode", then press PUSH ENTER.

3 Move the multi stick toward ◄ or ► repeatedly to select "TUNER Set Up ?", then press PUSH ENTER.

4 Move the multi stick toward ◄ or ► repeatedly to select "PTY Select ?", then press PUSH ENTER.

5 Move the multi stick toward ◄ or ► repeatedly to select the program type you want. See the "List of program types" section below.

6 Press PUSH ENTER.

The unit starts searching the preset RDS stations ("SEARCH" and the selected program type are shown alternately in the display).

When the tuner receives a program, the preset station number flashes.

7 Move the multi stick toward ◄ or ► repeatedly to display the preset station number you desire.

8 Press PUSH ENTER while the preset station number is flashing.

To cancel the menu operation

Press MODE SELECT.

To cancel PTY search

Press ■.

List of program types (PTY)

NEWS
News programs.

AFFAIRS
Topical programs that expand on current news.

INFO
Programs about consumer affairs, medical advice.

SPORT
Sports programs.

EDUCATE
Educational programs, such as "how-to" programs and advice.

DRAMA
Radio plays and serials.

CULTURE
Programs about national or regional culture, language, and social concerns.

SCIENCE
Programs about the natural sciences.

VARIED
Programs containing celebrity interviews, panel games, and comedy.

POP M
Popular music programs.

ROCK M
Rock music programs.

EASY M
Easy listening (middle of the road music).

LIGHT M
Classical music, such as instrumental, vocal, and choral works.

CLASSICS
Performances of major orchestras, chamber music, opera, etc.

OTHER M
Music, such as rhythm and blues and reggae.

WEATHER
Weather information.

FINANCE
Stock market reports and trading, etc.

CHILDREN
Programs for young.

SOCIAL
Programs about people and the things that affect them.

RELIGION
Programs of religious contents.

PHONE IN
Programs where members of the public express their views by phone or in a public forum.

TRAVEL
Programs about travel. Not for announcements that are located TP/TA.

LEISURE
Programs on recreational activities such as gardening, fishing, cooking, etc.

JAZZ
Jazz programs.

COUNTRY
Country music programs.

NATION M
Programs featuring the popular music of the country or region.

OLDIES
Programs featuring oldies music.

FOLK M
Folk Music Programs.

DOCUMENT
Investigative features.

TEST
Test signal for emergency broadcasts.

ALARM
Emergency broadcasts.

NONE
Any programming not defined above.

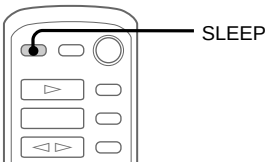
Note

"No PTY" appears when the program type you selected is not currently being broadcast.

Falling asleep to music

— Sleep Timer

You can let the system turn off at the preset time, so you can sleep to the music. You can preset the time to be turned off in 10 minute increments.



➡ Press SLEEP on the remote.

Each time you press the button, the minute display (the turn-off time) changes as follows:

Auto ⟶ 90min ⟶ 80min ⟶ 70min ⟶ … ⟶ 10min ⟶ Off ⟶ Auto …

When you choose "Auto"

The power turns off when the current CD or tape finishes playback (for up to 100 minutes).

To check the remaining time

Press SLEEP on the remote once.

To change the time to turn off

Press SLEEP on the remote repeatedly to select the time you want.

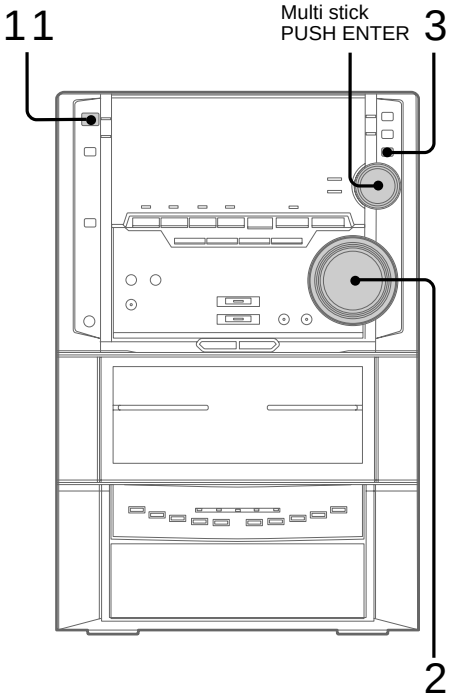
To cancel the Sleep Timer function

Press SLEEP on the remote repeatedly until "Sleep Off" appears.

Waking up to music

— Daily Timer

You can wake up to music at a preset time every day. Make sure you have set the clock (see “Step 3: Setting the time” on page 9).



1 Prepare the music source you want to play.

- CD: Insert a CD. To start from a specific track, make a program (see “Programming the CD tracks” on page 26).
- Tape: Insert an tape with the side you want to play facing forward.
- Radio: Tune in the preset station you want (see “Listening to the radio” on page 16).

2 Adjust the volume.

3 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

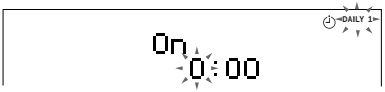
4 Move the multi stick toward ◄ or ► repeatedly to select “Timer Set Up ?”, then press PUSH ENTER.

5 Move the multi stick toward ◄ or ► repeatedly to select “Timer Set ?”, then press PUSH ENTER.

“Set Daily 1” appears.

6 Move the multi stick toward ◄ or ► repeatedly to select “Daily 1 (or 2)”, then press PUSH ENTER.

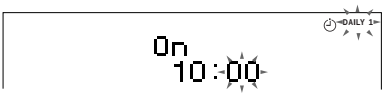
“On” appears and the hour digits flash in the display.



7 Set the time to start playback.

Move the multi stick toward ▲ or ▼ repeatedly to set the hour, then press PUSH ENTER.

The minute digits flash in the display.

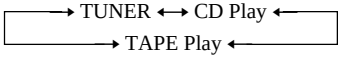


Move the multi stick toward ▲ or ▼ repeatedly to set the minute, then press PUSH ENTER.

8 Set the time to stop playback following step 7.

9 Move the multi stick toward ◀ or ▶ repeatedly to select the music source you want.

Each time you move the multi stick toward ◀ or ▶, the display changes as follows.



10 Press PUSH ENTER.

The type of timer (“Daily 1” or “Daily 2”), followed by the start time, stop time and the music source, appears, then the original display appears.

11 Turn off the power.

To cancel the menu operation

Press MODE SELECT.

To check the setting

1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
2 Move the multi stick toward ◀ or ▶ repeatedly to select “Timer Set Up ?”, then press PUSH ENTER.
3 Move the multi stick toward ◀ or ▶ repeatedly to select “Timer Select ?”, then press PUSH ENTER.
4 Move the multi stick toward ◀ or ▶ repeatedly to select the respective mode (“Daily 1” or “Daily 2”), then press PUSH ENTER.

To change the setting, start over from step 1 on page 44.

To cancel the timer operation

1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
2 Move the multi stick toward ◀ or ▶ repeatedly to select “Timer Set Up ?”, then press PUSH ENTER.
3 Move the multi stick toward ◀ or ▶ repeatedly to select “Timer Select ?”, then press PUSH ENTER.
4 Move the multi stick toward ◀ or ▶ repeatedly to select “Timer Off”, then press PUSH ENTER.

Tip

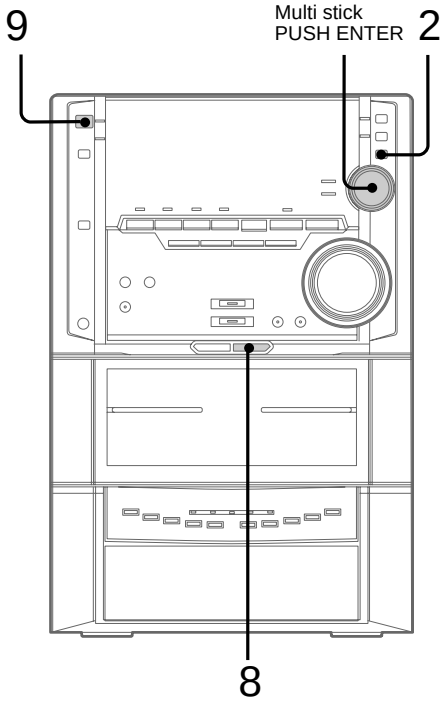
The power turns on 15 seconds before the preset time.

Notes

- You cannot activate DAILY 1 and DAILY 2 Timer at the same time.
- You cannot set the timer if the starting time and stopping time are the same.
- When you use the Sleep Timer, Daily Timer will not turn on the system until the Sleep Timer turns it off.
- You cannot activate Daily Timer and Timer-recording at the same time.

Timer-recording radio programs

To timer-record, you must preset the radio station (see “Step 4: Presetting radio stations” on page 10) and set the clock (see “Step 3: Setting the time” on page 9) beforehand.



1 Tune in the preset radio station (see “Listening to the radio” on page 16).

2 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.

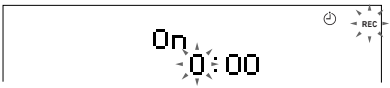
3 Move the multi stick toward ◄ or ► repeatedly to select “Timer Set Up ?”, then press PUSH ENTER.

4 Move the multi stick toward ◄ or ► repeatedly to select “Timer Set ?”, then press PUSH ENTER.

“Set Daily 1” appears.

5 Move the multi stick toward ◄ or ► repeatedly to select “Set REC”, then press PUSH ENTER.

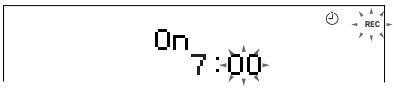
“On” appears and the hour digits flash in the display.



6 Set the time to start recording.

Move the multi stick toward ▲ or ▼ repeatedly to set the hour, then press PUSH ENTER.

The minute digits flash in the display.



Move the multi stick toward ▲ or ▼ repeatedly to set the minute, then press PUSH ENTER.

7 Set the time to stop recording following step 6.

The start time appears, followed by the stop time, the preset radio station to be recorded (e.g., “TUNER FM 5”), then the original display appears.

8 Insert a recordable tape.

9 Turn off the power.

When the recording starts, the volume level is set to the minimum.

To cancel the menu operation

Press MODE SELECT.

To check the setting

1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
2 Move the multi stick toward ◀ or ▶ repeatedly to select “Timer Set Up ?”, then press PUSH ENTER.
3 Move the multi stick toward ◀ or ▶ repeatedly to select “Timer Select ?”, then press PUSH ENTER.
4 Move the multi stick toward ◀ or ▶ repeatedly to select “REC”, then press PUSH ENTER.

To change the setting, start over from step 1 on page 46.

To cancel the timer operation

1 Press MODE SELECT repeatedly to select “Set Up Mode”, then press PUSH ENTER.
2 Move the multi stick toward ◀ or ▶ repeatedly to select “Timer Set Up ?”, then press PUSH ENTER.
3 Move the multi stick toward ◀ or ▶ repeatedly to select “Timer Select ?”, then press PUSH ENTER.
4 Move the multi stick toward ◀ or ▶ repeatedly to select “Timer Off”, then press PUSH ENTER.

Notes

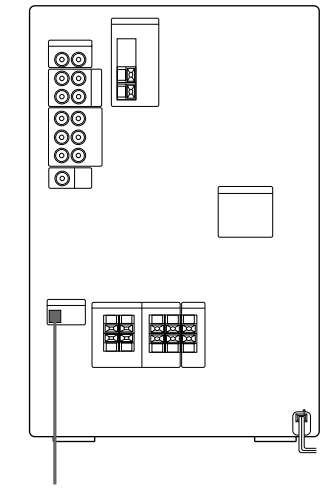
- If the power is on at the preset time, the recording will not be made.
- You cannot set the timer if the starting time and stopping time are the same.
- When you use the Sleep Timer, Timer-recording will not turn on the system until the Sleep Timer turns it off.
- You cannot activate Timer-recording and Daily Timer at the same time.

Connecting audio components

Depending on the equipment to be connected and the method of connecting, select one of the following connections. Refer to the instructions of each component.

Connecting an MD deck for digital recording

You can record from CD into the MD deck digitally by connecting an optical cable.



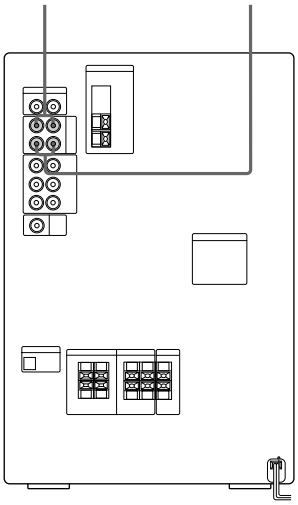
To the digital input of the MD deck

Connecting an MD deck for analog recording

Make sure to match the color of the plugs and the connectors. To listen to the sound of the connected MD deck, press FUNCTION repeatedly until “MD” appears.

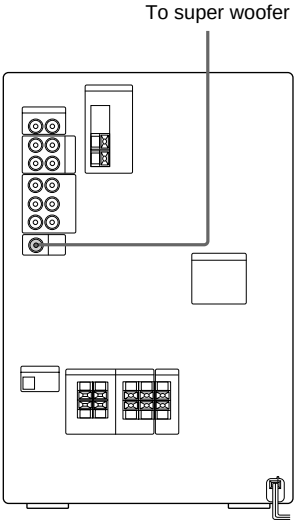
To the audio output of the MD deck

To the audio input of the MD deck



Connecting a super woofer speaker

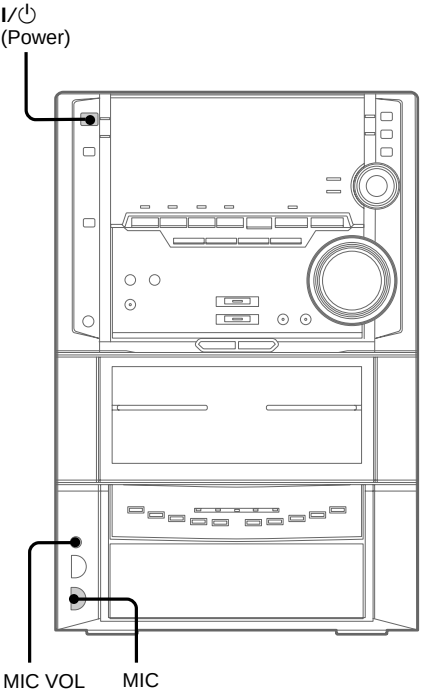
You can connect an optional super woofer speaker.



Connecting a microphone

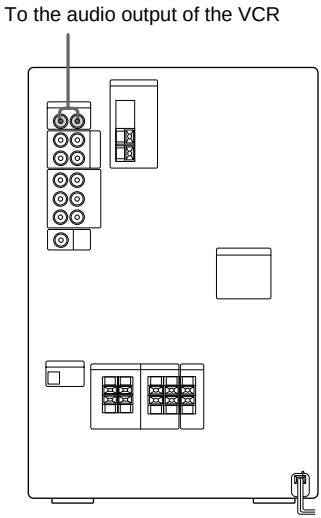
(Asian model only)

You can connect an optional microphone to the MIX MIC jack. Adjust the microphone volume by turning MIC VOL.



Connecting a VCR

Make sure to match the color of the plugs and the connectors. To listen to the sound of the connected VCR, press FUNCTION repeatedly until “VIDEO” appears. Refer to the instructions of each component.



Note

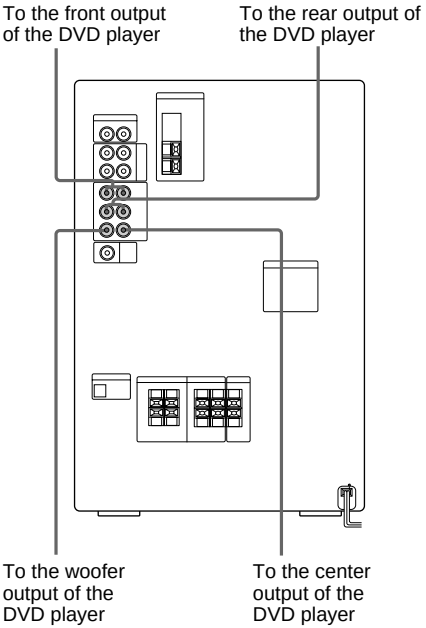
When you connect a VIDEO CD player, connect the audio output jacks of the VIDEO CD player to the MD IN jacks of this unit.

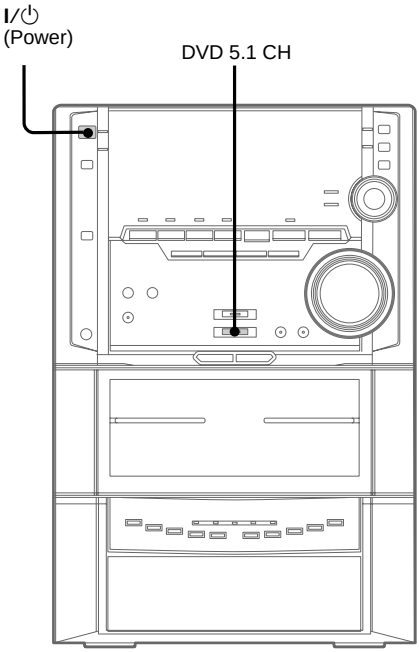
Connecting a DVD player

When your DVD player has 5.1 channel analog outputs

Be sure to match the color of the plugs and the connectors. To listen to the sound from the connected DVD player, press DVD 5.1 CH until “DVD 5.1 CH” appears in the display.

When you listen to a stereo sound track from the DVD player, press DVD 5.1 CH until “DVD” appears in the display.


To the front output of the DVD player
To the rear output of the DVD player
To the woofer output of the DVD player
To the center output of the DVD player



When your DVD player has stereo analog outputs

Be sure to match the color of the plugs and the connectors. Connect the LINE OUT (audio) output jack of your DVD player to the FRONT jacks of DVD INPUT with the audio connecting cable. To listen to the sound from the connected DVD player, press DVD 5.1 CH repeatedly until "DVD" appears in the display.

Notes

- Each time you press DVD 5.1 CH, the function changes as follows.
  DVD 5.1 CH ⟷ DVD (2 channel)
- You cannot enjoy the 5.1 channel surround sound if you connect a DVD player which does not have the 5.1 channel analog outputs.
- If there is no sound when you connect a DVD player which has 5.1 channel analog outputs, connect the LINE OUT (audio) output jacks of your DVD player to the MD IN jacks, then change the function to "MD" by pressing FUNCTION.

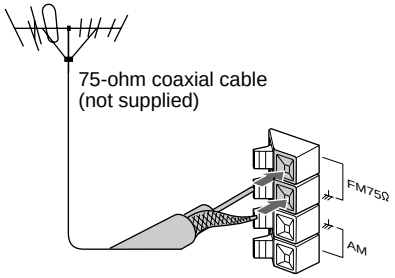
Connecting external antennas

Connect the external antenna to improve the reception. Refer to the instructions of each component.

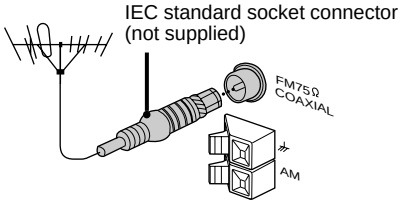
FM antenna

Connect the optional FM external antenna. You can also use the TV antenna instead.

Jack type Ⓐ



Jack type Ⓑ

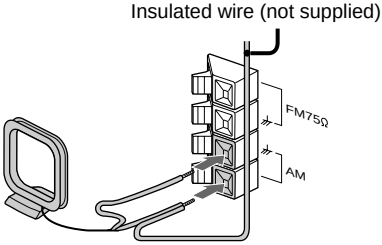


continued

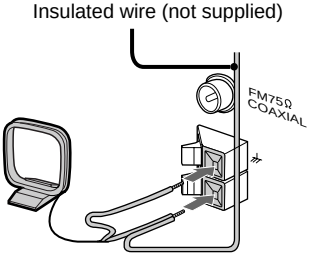
AM antenna

Connect a 6- to 15- meter insulated wire to the AM antenna terminal. Leave the supplied AM loop antenna connected.

Jack type Ⓐ



Jack type Ⓑ



Precautions

On operating voltage

Before operating the system, check that the operating voltage of your system is identical with the voltage of your local power supply.

On safety

- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Unplug the system from the wall outlet (mains) if it is not to be used for an extended period of time. To disconnect the cord (mains lead), pull it out by the plug. Never pull the cord itself.
- Should any solid object or liquid fall into the component, unplug the stereo system and have the component checked by qualified personnel before operating it any further.
- The AC power cord must be changed only at a qualified service shop.

On placement

- Place the stereo system in a location with adequate ventilation to prevent heat build-up in the stereo system.
- Do not place the unit in an inclined position.
- Do not place the unit in locations where it is;
  — Extremely hot or cold
  — Dusty or dirty
  — Very humid
  — Vibrating
  — Subject to direct sunlight.

On operation

- If the stereo system is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the CD player. Should this occur, the system will not operate properly. Remove the CD and leave the system turned on for about an hour until the moisture evaporates.
- When you move the system, take out any discs.

If you have any questions or problems concerning your stereo system, please consult your nearest Sony dealer.

Notes on CDs

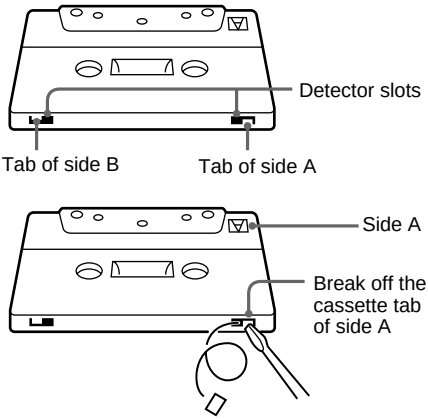
- Before playing, clean the CD with a cleaning cloth. Wipe the CD from the center out.
- Do not use solvents such as benzene, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.
- Do not expose the CD to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight.
- When using CDs that have glue or similar tacky substance on the label side of the disc or that used a special ink when the label was printed, there is a chance that the CD or label may become attached to parts inside this unit. When this occurs, it may not be possible to remove the CD, and may also cause this unit to malfunction. Be sure to check that the label side of the CD is not sticky before using.
  The following types of CD should not be used:
  — Rental or used CDs with attached seals where the glue extends beyond the seal. The perimeter of the seal on the CD is tacky.
  — CDs that have labels printed using a special ink that feels tacky when touched.

Cleaning the cabinet

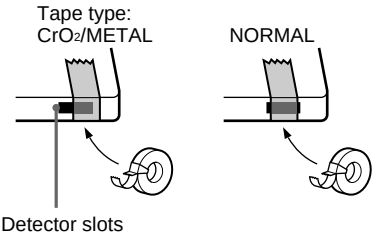
Use a soft cloth slightly moistened with mild detergent solution.

To save a tape permanently

To prevent a tape from being accidentally recorded over, break off the cassette tab from side A or B as illustrated.



If you later want to reuse the tape for recording, cover the broken tab with adhesive tape. However, be careful not to cover the detector slots which allow the tape player to automatically detect the type of tape.



continued

Before placing a cassette in the tape deck

Take up any slack in the tape. Otherwise the tape may get entangled in the parts of the tape deck and become damaged.

When using a tape longer than 90 minutes

The tape is very elastic. Do not change the tape operations such as play, stop, and fast-winding, etc. frequently. The tape may get entangled in the tape deck.

Cleaning the tape heads

Clean the tape heads after every 10 hours of use. When the tape heads become dirty;

— the sound is distorted
— there is a decrease in sound level
— the sound drops out
— the tape does not erase completely
— the tape does not record.

Make sure to clean the tape heads before you start an important recording or after playing an old tape. Use separately sold dry-type or wet-type cleaning cassette. For details, refer to the instructions of the cleaning cassette.

Demagnetizing the tape heads

Demagnetize the tape heads and the metal parts that have contact with the tape every 20 to 30 hours of use with a separately sold demagnetizing cassette. For details, refer to the instructions of the demagnetizing cassette.

Troubleshooting

If you run into any problem using this stereo system, use the following check list.

First, check that the power cord is connected firmly and the speakers are connected correctly and firmly.

Should any problem persist, consult your nearest Sony dealer.

General

The display starts flashing as soon as you plug in the power cord even though you haven't turned on the power (demonstration mode).

- Press DISPLAY repeatedly when the power is turned off. The demonstration disappears.

The clock setting/radio presetting/timer is canceled.

- The power cord is disconnected or a power failure occurs longer than half a day.
  Redo the followings:
  — "Step 3: Setting the time" on page 9.
  — "Step 4: Presetting radio stations" on page 10.
  If you have set the timer, also redo "Waking up to music" on page 44 and "Timer-recording radio programs" on page 46.

There is no sound.

- Rotate VOLUME clockwise.
- The headphones are connected.
- Insert only the stripped portion of the speaker cord into the SPEAKER jack. Inserting the vinyl portion of the speaker cord will obstruct the speaker connections.
- There is no audio output during timer recording.

There is severe hum or noise.

- A TV or VCR is placed too close to the stereo system. Move the stereo system away from the TV or VCR.

"--:--" appears in the display.

- A power interruption occurred. Set the clock and timer settings again.

The timer does not function.

- Set the clock correctly.

"Daily 1", "Daily 2", or "REC" do not appear when you select "Timer Select ?" menu.

- Set the timer correctly.
- Set the clock.

The remote does not function.

- There is an obstacle between the remote and the system.
- The remote is not pointing in the direction of the system's sensor.
- The batteries have run down. Replace the batteries.

There is acoustic feedback.

- Decrease the volume level.
- Move the microphone away form the speakers or change the direction of the microphone.

The color irregularity on a TV screen persists.

- Turn off the TV set once, then turn it on after 15 to 30 minutes. If the color irregularity still persists, place the speakers farther away from the TV set.

"PROTECT" and "PUSH POWER" appear alternately.

- A strong signal was input. Press I/⏻ to turn off the power, leave the system turned off for a while, then press I/⏻ again to turn on the power.
  If "PROTECT" and "PUSH POWER" appear alternately even after the power is turned on again, press I/⏻ to turn off the power and check the speaker cord.

Speakers

Sound comes from one channel or unbalanced left and right volume.

- Check the speaker connection and speaker placement.

The sound comes from the center speaker only.

- The source being played back is monaural. Press PRO LOGIC to turn off the Pro Logic mode.

There is no sound from the center speaker.

- Set the CENTER LEVEL to the appropriate level.

There is no sound from the rear speakers.

- Set the REAR LEVEL to the appropriate level.
- The software being played back has limited sound effects. Check the volume with the test tone.

Sound lacks bass.

- Check that the speaker's + and – jacks are connected correctly.

CD Player

The CD tray does not close.

- The CD is not placed properly.

The CD will not play.

- The CD is not lying flat in the disc tray.
- The CD is dirty.
- The CD is inserted label side down.
- Moisture condensation has built up. Remove the CD and leave the system turned on for about an hour until the moisture evaporates.

Play does not start from the first track.

- The player is in program or shuffle mode. Select "1 Disc" or "All Discs" in the "Play Mode" menu (pages 25, 27).

"Over" is displayed.

- You have reached the end of the CD. Press and hold ◀◀ to return.

continued

Tape Deck

The tape does not record.

- No tape in the cassette holder.
- The tab has been removed from the cassette (see “To save a tape permanently” on page 53).
- The tape has reeled to the end.

The tape does not record nor play or there is a decrease in sound level.

- The heads are dirty. Clean them (see “Cleaning the tape heads” on page 54).
- The record/playback heads are magnetized. Demagnetize them (see “Demagnetizing the tape heads” on page 54).

The tape does not erase completely.

- The record/playback heads are magnetized. Demagnetize them (see “Demagnetizing the tape heads” on page 54).

There is excessive wow or flutter, or the sound drops out.

- The capstans or pinch rollers are dirty. Clean them (see “Cleaning the tape heads” on page 54).

Noise increases or the high frequencies are erased.

- The record/playback heads are magnetized. Demagnetize them (see “Demagnetizing the tape heads” on page 54).

After pressing ► (◄) or ⏏, there is a mechanical noise, “EJECT” appears in the display, and the unit enters standby mode automatically.

- The cassette tape was not inserted correctly. Eject the tape and turn the power back on.

Tuner

Severe hum or noise (“TUNED” or “STEREO” flashes in the display).

- Adjust the antenna.
- The signal strength is too weak. Connect the external antenna.

A stereo FM program cannot be received in stereo.

- Select “Stereo” in the “Stereo Mono ?” menu.

If other troubles not described above occur, reset the system as follows:

1 Unplug the power cord.

2 Plug the power cord back in.

3 Press ■, DISPLAY, and DISC 5 at the same time.

4 Press I/⏻ to turn on the power.

The system is reset to the factory settings. All the settings you made, such as the preset stations, clock, and timer are cleared. You should set them again.

Specifications

Amplifier section

Canadian model:

Front Speaker:

Continuous RMS power output
100 + 100 watts
(8 ohms at 1 kHz,
10% THD)

Total harmonics distortion
Less than 0.07%
(8 ohms at 1 kHz, 50 W)

Center Speaker:

Continuous RMS power output
40 watts
(8 ohms at 1 kHz,
10% THD)

Rear Speaker:

Continuous RMS power output
40 + 40 watts
(8 ohms at 1 kHz,
10% THD)

European model:

Front Speaker:

DIN power output (rated) 80 + 80 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
100 + 100 watts
(8 ohms at 1 kHz,
10% THD)
Music power output (reference)
170 + 170 watts
(8 ohms at 1 kHz,
10% THD)

Center Speaker:

DIN power output (rated) 30 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
40 watts
(8 ohms at 1 kHz,
10% THD)
Music power output (reference)
60 watts
(8 ohms at 1 kHz,
10% THD)

Rear Speaker:

DIN power output (rated) 30 + 30 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
40 + 40 watts
(8 ohms at 1 kHz,
10% THD)
Music power output (reference)
60 + 60 watts
(8 ohms at 1 kHz,
10% THD)

Other models:

The following measured at AC 120/220/240 V, 50/60 Hz

Front Speaker:

DIN power output (rated) 95 + 95 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
120 + 120 watts
(8 ohms at 1 kHz,
10% THD)

Center Speaker:

DIN power output (rated) 30 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
40 watts
(8 ohms at 1 kHz,
10% THD)

Rear Speaker:

DIN power output (rated) 30 + 30 watts
(8 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
40 + 40 watts
(8 ohms at 1 kHz,
10% THD)

continued

Inputs

VIDEO IN:	voltage 250 mV,
(phono jacks)	impedance 47 kilohms
MD IN:	voltage 450 mV,
(phono jacks)	impedance 47 kilohms
DVD INPUT:	
FRONT IN:	voltage 450 mV,
(phono jacks)	impedance 47 kilohms
REAR IN:	voltage 450 mV,
(phono jacks)	impedance 47 kilohms
CENTER IN:	voltage 450 mV,
(phono jacks)	impedance 47 kilohms
WOOFER IN:	voltage 450 mV,
(phono jacks)	impedance 47 kilohms
MIX MIC:	sensitivity 1 mV,
(mini jack)	impedance 10 kilohms
(Asian model only)	

Outputs

MD OUT:	voltage 250 mV
(phono jacks)	impedance 1 kilohms
PHONES:	accepts headphones of
(stereo mini jack)	8 ohms or more
FRONT SPEAKER:	accepts impedance of 8 to 16 ohms
REAR SPEAKER:	accepts impedance of 8 to 16 ohms
CENTER SPEAKER:	accepts impedance of 8 to 16 ohms
SUPER WOOFER:	Voltage 1 V, impedance 1 kilohms

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser
	(λ=780nm)
	Emission duration: continuous
Laser output	Max. 44.6 μW*
	*This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Wavelength	780 – 790 nm
Frequency response	2 Hz – 20 kHz (±0.5 dB)
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB

CD OPTICAL DIGITAL OUT
(Square optical connector jack, rear panel)

Wavelength	660 nm
Output Level	–18 dBm

Tape player section

Recording system	4-track 2-channel stereo
Frequency response	40 – 13,000 Hz (±3 dB),
(DOLBY NR OFF)	using Sony TYPE I cassette
	40 – 14,000 Hz (±3 dB),
	using Sony TYPE II cassette
Wow and flutter	±0.15% W.Peak (IEC)
	0.1% W.RMS (NAB)
	±0.2% W.Peak (DIN)

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range

Canadian model:	87.5 – 108.0 MHz (100 kHz step)
Other models:	87.5 – 108.0 MHz (50 kHz step)
Antenna	FM lead antenna
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range

Canadian model:	530 – 1,710 kHz
	(with the interval set at 10 kHz)
	531 – 1,710 kHz
	(with the interval set at 9 kHz)

European and Middle Eastern models:

	531 – 1,602 kHz
	(with the interval set at 9 kHz)
Other models:	531 – 1,602 kHz
	(with the interval set at 9 kHz)
	530 – 1,710 kHz
	(with the interval set at 10 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

Speaker

Front Speaker:

SS-ZX30AV for MHC-ZX30AV (Canadian, European and Australian models)

Speaker system	3-way, bass-reflex type, magnetically shielded type
Speaker units	
Woofer:	17 cm, cone type
Tweeter:	5 cm, cone type
Super Tweeter:	4 cm, cone type
Nominal impedance	8 ohms
Dimensions (w/h/d)	Approx. 250 x 375 x 285 mm
Mass	Approx. 5.5 kg net per speaker

SS-ZX30AVW for MHC-ZX30AV (Other models)

Speaker system	3-way, bass-reflex type, magnetically shielded type
Speaker units	
Woofer:	15 cm, cone type
Super woofer:	15 cm, cone type
Tweeter:	5 cm, cone type
Nominal impedance	8 ohms
Dimensions (w/h/d)	Approx. 250 x 375 x 325 mm
Mass	Approx. 7.0 kg net per speaker

Rear Speaker (SS-RS170P):

Speaker system	1-way, 1-unit, bass-reflex type
Speaker units	
Full-range:	8 cm, cone type
Nominal impedance	8 ohms
Dimensions (w/h/d)	Approx. 195 x 105 x 135 mm
Mass	Approx. 1.0 kg net per speaker

Center Speaker (SS-CT170):

Speaker system	1-way, 1-unit, bass-reflex type, magnetically shielded
Speaker units	
Full-range:	8 cm, cone type
Nominal impedance	8 ohms
Dimensions (w/h/d)	Approx. 220 x 105 x 135 mm
Mass	Approx. 1.1 kg net

For the customers in Canada

Use only the supplied SS-RS170P rear surround speaker for connection to the REAR SPEAKER connector, the supplied SS-CT170 center surround speaker for connection to the CENTER SPEAKER connector on the MHC-ZX30AV.

General

Power requirements	
Canadian model:	120 V AC, 60 Hz
European model:	230 V AC, 50/60 Hz
Australian model:	230 – 240 V AC, 50/60 Hz
Mexican model:	120 V AC, 60 Hz
Thai model:	220 V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	
Canadian model:	200 VA
European model:	200 watts
Other models:	210 watts
Dimensions (w/h/d)	Approx. 250 x 375 x 395 mm
Mass	
Canadian model:	Approx. 12.5 kg
European model:	Approx. 12.5 kg
Other models:	Approx. 13.0 kg
Supplied accessories:	AM loop antenna (1) FM lead antenna (1) Remote Commander (1) Batteries (2) Speaker cords (5) Front speaker pads (8)

Design and specifications are subject to change without notice.

Parts Identification for the remote

You can also operate the system with the supplied remote.

*: You can operate with the remote only.

TUNER

Remote Button(s)	Function
TUNER/BAND	Selects FM or AM.
⏮/⏭ (+, –)	Selects a preset number.
◀◀/▶▶	Scans for a station or selects a preset station.

CD

Remote Button(s)	Function
CD ▷	Starts play back.
■	Stops playback.
⏸	Pauses playback.
⏮/⏭	Selects a track (AMS: Automatic Music Sensor).
◀◀/▶▶	Locates a desired point in a track.
D.SKIP*	Exchanges CDs.
LOOP*	Activates Loop function.
FLASH*	Activates Flash function.
DISPLAY	Changes the front panel display.

TAPE

Remote Button(s)	Function
TAPE A ◁▷ TAPE B ◁▷	Starts playback. Each time you press this button, the tape reverses direction.
■	Stops playback.
⏮/⏭	Searches for the beginning of a Track (AMS).
◀◀/▶▶	Fast-forwards or rewinds.

TIMER

Remote Button(s)	Function
SLEEP*	Selects a sleep timer.

OTHERS

Remote Button(s)	Function
I/⏻	Turns the system on or off.
VOLUME +/–	Adjusts the volume.
←/→/↑/↓ ENTER	Use to select menu and adjust the settings.
FUNCTION	Selects the function.
MODE SELECT	Enters the menu mode.
FILE SELECT	Selects the preset audio effect file.
MD*	Press to listen to the connected MD deck.
VIDEO*	Press to listen to the connected VCR.
DVD 5.1 CH	Press to listen to the connected DVD player.
PRO LOGIC ON/OFF	Activates the Pro Logic effects.
T.TONE ON/OFF*	Use to test each speaker's volume.
DSP	Activates the surround effects.
CENTER LEVEL +/–*	Adjusts the center speaker level.
REAR LEVEL +/–*	Adjusts the rear speaker level.

Index

A

Adjusting
- the seat position 37
- the sound 33
- speaker volume 8
- the volume 8, 14, 17, 20

Antennas 5, 51
Automatic Source Selection 14, 17, 21

B

Batteries 6

C

CD player 13, 23-27
CD Synchro Recording 15
Clock setting 9
Connecting 4-7, 48-52

D

Daily Timer 44
Dimmer 36
Display 23
Dolby Pro Logic Surround 38

E

Edit 29, 32

F, G

Flash 33

H, I, J, K

High-speed Dubbing 22
Hooking up
- optional components 48-52
- the antennas 5, 51
- the power 6
- the system 4

L

Listening to the radio 16
Loop 32

M

Multi stick 9

N

Normal Play 13

O

One Touch Play 14, 17, 21

P, Q

Personal file 40
Playing
- a CD 13
- a tape 19
- tracks in random order (Shuffle Play) 25
- tracks in the desired order (Program Play) 26
- tracks repeatedly (Repeat Play) 24

Presetting radio stations 10
Preset tuning 16
Program Edit 29
Program Play 26
Protecting recordings 53
PTY 41

R

Radio Data System 41
Radio stations
- presetting 10
- tuning in 16

Recording
- a CD 15
- a radio program 18
- timer recording 46

Repeat Play 24
Resetting the system 56

S

Saving recordings 53
Selecting the audio effect file 34
Setting the time 9
Shuffle Play 25
Sleep Timer 43
Sound adjustment 33
- GROOVE 33
- GROOVE-EX 34
- V-GROOVE 34

Speakers 7
Station name 41

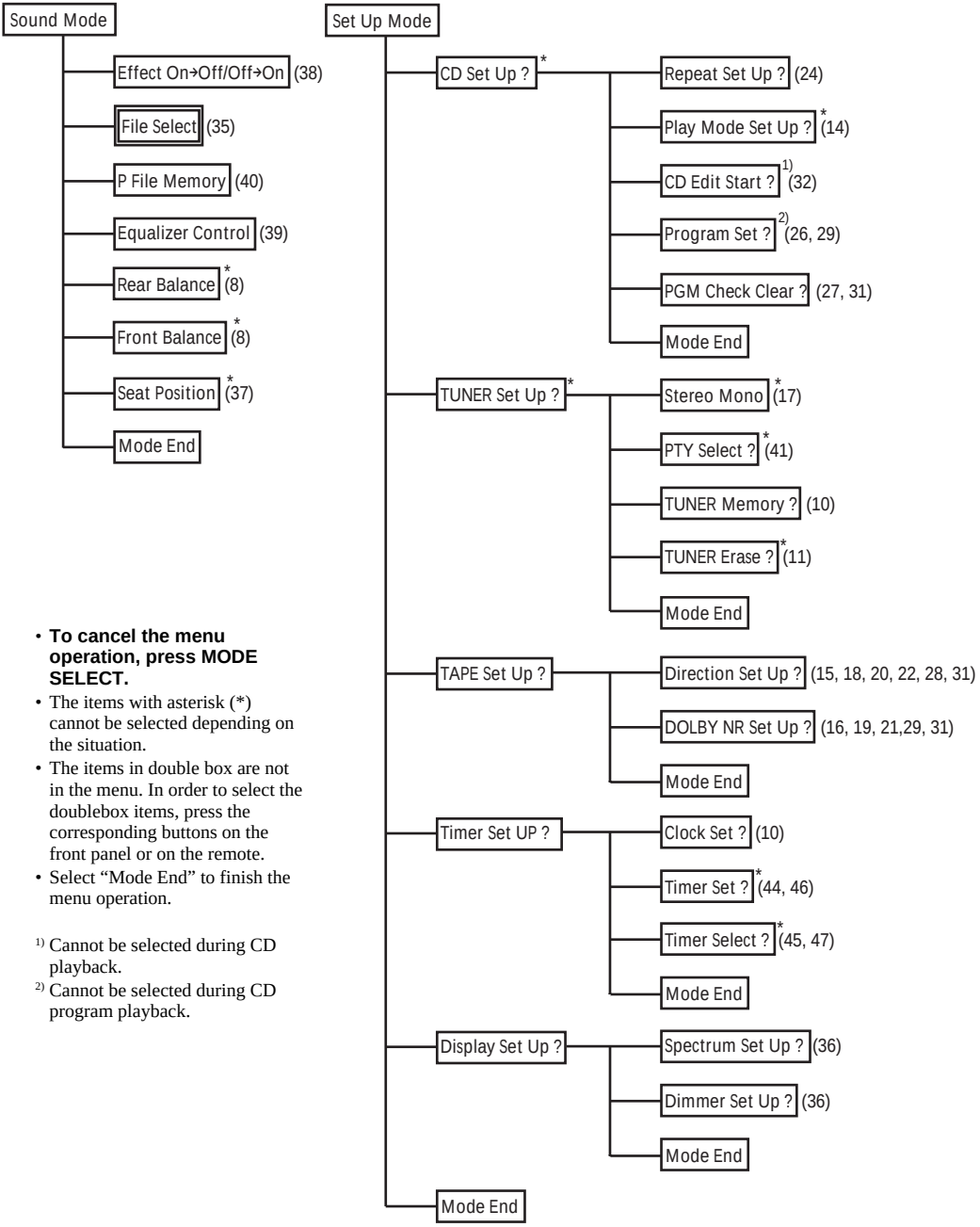
T, U, V, W, X, Y, Z

Tape Select Edit 32
Test tone 8
Timer
- falling asleep to music 43
- timer recording 46
- waking up to music 44

Troubleshooting 54
Tuner 10, 16, 41
Tuning interval 11

Items in “Sound Mode” and “Set Up Mode”

The numbers in parenthesis denotes the page number for the item.


Sound Mode
Effect On→Off/Off→On (38)
File Select (35)
P File Memory (40)
Equalizer Control (39)
Rear Balance * (8)
Front Balance * (8)
Seat Position * (37)
Mode End
Set Up Mode
CD Set Up ? *
Repeat Set Up ? (24)
Play Mode Set Up ? * (14)
CD Edit Start ? 1) (32)
Program Set ? 2) (26, 29)
PGM Check Clear ? (27, 31)
Mode End
TUNER Set Up ? *
Stereo Mono * (17)
PTY Select ? * (41)
TUNER Memory ? (10)
TUNER Erase ? * (11)
Mode End
TAPE Set Up ?
Direction Set Up ? (15, 18, 20, 22, 28, 31)
DOLBY NR Set Up ? (16, 19, 21,29, 31)
Mode End
Timer Set UP ?
Clock Set ? (10)
Timer Set ? * (44, 46)
Timer Select ? * (45, 47)
Mode End
Display Set Up ?
Spectrum Set Up ? (36)
Dimmer Set Up ? (36)
Mode End
Mode End

- **To cancel the menu operation, press MODE SELECT.**
- The items with asterisk (*) cannot be selected depending on the situation.
- The items in double box are not in the menu. In order to select the doublebox items, press the corresponding buttons on the front panel or on the remote.
- Select “Mode End” to finish the menu operation.

1) Cannot be selected during CD playback.

2) Cannot be selected during CD program playback.

Sony Corporation Printed in Malaysia